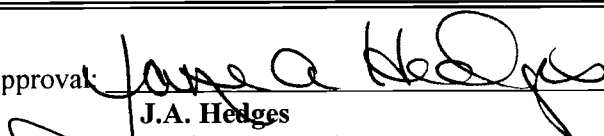



**Office of River Protection  
Tri-Party Agreement Milestone Review  
Meeting Minutes  
February 17, 2011**

Approval:   
**J.A. Hedges**  
*Ecology IAMIT Representative*

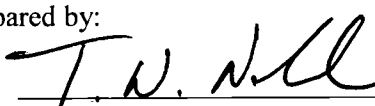
Date: 3/21/11

Approval:   
**S.L. Charboneau**  
*DOE IAMIT Representative*

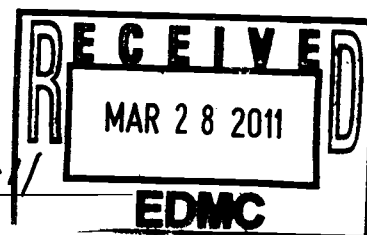
Date: 3/23/11

Approval:   
**D.A. Faulk** *Rael Lobos For.*  
*EPA IAMIT Representative*

Date: 3-22-2011

Minutes Prepared by:   
**T.W. Noland**  
*Mission Support Alliance*

Date: 3/28/2011



Abdul, W.	ORP	Lobos, R.A.*	EPA
Artz, M.A.*	MSA	Luke, J.J.	WRPS
Barnes, M.W.	Ecology	Lynch, J.J.*	ORP
Bohnee, G.	NPT	Lyon, J.J.*	Ecology
Bowers, H.M.*	WRPS	McDonald, D.*	Ecology
Caggiano, J.A.	Ecology	Moore, S.L.*	MSA
Cameron, C.E.	EPA	Niles, K.	OOE
Charboneau, S.L.	ORP	Noland, T.W.*	MSA
Cimon, S.*	ODE	Noyes, D.L.*	ORP
Dahl, S.L.	Ecology	Ollero, J.F.	MSA
Diediker, J.A.	ORP	Olsen, G.B.	ORP
Donnelly J.W.*	WRPS	Pfaff, S.H.	ORP
Eberlein, S.J.	WRPS	Piippo, R.E.*	MSA
Einan, D.R.	EPA	Price, J.B.	Ecology
Faulk, D.A.	EPA	Russell, R.W.*	ORP
Fletcher, T.W.	ORP	Skinnarland, R.R.	Ecology
Harris, S.	CTUIR	Swann, P.J.*	ORP
Hedges, J.*	Ecology	Teimouri, A.E.*	HQ
Hendrickson, M.L.	Ecology	Trenchard, G.D.*	ORP
Huffman, L.A.*	ORP	Trent, J.S.	ORP
Jim, R.	Yakama	Uziemblo, N.H.	Ecology
Johnson, J.M.*	ORP	Vance, J.G.	FH
Kemp, C.J.*	ORP	Vanni, J.	Yakama
Killooy, S.E.*	WRPS	Whalen, C.L.	Ecology
Koll, R.J.	ORP	Young, J.D.	ORP
Knight, D.P.*	ORP		
Knox, K.E.*	KCR		
Lober, R.W.*	ORP		

Administrative Record

*\*Attendees*

**Office of River Protection  
Tri-Party Agreement Quarterly Milestone Review  
Meeting Minutes  
February 17, 2011**

**Statistics/Status**

ORP stated that the first three pages of the TPA project summary report provided the status of the milestones, and noted that the 2010 status will be removed and the 2012 milestones will be added. Ecology asked where the M-062-49 was listed. ORP responded that it is a 2012 milestone, and it will be included in the TPA project summary report when the 2012 milestones are added.

**Milestone M-45, -50, -60 Single-Shell Tank Corrective Action**

M-045-60, Submit to Ecology for Review and Approval as an Agreement Primary Document DOE's Phase 2 RFI/CMS Work Plan and Sampling and Analysis Plan (SAP) for WMA C

ORP reported that meetings with Ecology and EPA continue on a monthly basis, and modifications to the work plan have been identified. One work plan modification to the TPA process has been completed, which provides for acceleration of certain scopes. The modification is in Ecology and EPA review. Two work plan change notices are being worked with Ecology. The change request is for the Appendix B Eco risk sampling approach, and a minor SAP change for cyanide detection.

Last week, approval was received from Ecology to reduce the selected constituent sampling, based on findings to date at 11 sites. A diagonal push has been done under tank C-104, and sampling is planned for next week. With the assistance of Ecology, locations have been targeted for sampling at C-104. Additionally, two diagonal pushes under tank C-101 will be done next month. Surface geophysical exploration (SGE) is being done in a UPR in the north side of WMA C, and the data collection is ongoing.

M-045-92, DOE and Ecology Will Establish, No Later than March 31, 2010, Selection Criteria for Installation of Additional Interim Barriers at Additional WMAs (beyond the T-106 and TY barriers). Due: 09/30/2016

ORP stated that Ecology approved the location of the next two barriers in SX. The SX design is under way, and ORP is working with DOE-RL to assure access to groundwater wells in the area. The characterization work is under way in BY, and direct pushes are being done in five locations.

Regarding the interim barrier work, potential changes to the construction finish time line are under review and have been presented to Ecology. The milestone calls for construction complete by June, and it has been proposed to move the date out to October to take advantage of the

summer season. ORP and Ecology have agreed on the next locations for characterization for future barriers in FY12 and FY13. SGE will be deployed in U where deep electrodes are already in place. Direct pushes will be done in TX to install electrodes and further characterize.

#### Issues:

ORP stated that it is supporting Ecology's request for additional milestones for the next two tank farm corrective measures study (CMS). The request is being supported as part of the second closure determination discussions that are under way. ORP stated that it is operating to the A/AX Data Quality Objective (DQO) with Ecology staff, and ORP is presuming A/AX to be the second CMS for retrieval. ORP does not anticipate any modeling or CMS delays in the deliverable, based on the Performance Assessment (PA) path forward discussions.

#### **Milestone M-45-00, Complete Closure of all Single-Shell Tank Farms**

ORP noted that there are retrieval milestones listed in the TPA project summary and the Consent Decree project summary handouts provided today, and milestones in the TPA package would be addressed first.

M-045-100, Submit as a Primary Document a Catch Tank "Assumed Leak Response Plan"  
M-045-101, Submit to Ecology as a Primary Document a Report on all Catch Tanks and  
Associated Pipelines in the SST System Part A

ORP stated that these two milestones were completed, and Ecology has requested an extension to April 18, 2011 for review of the two documents.

M-045-80, Complete Those Portions of C-200 Closure Demonstration Plan

ORP stated that this milestone was completed, and Ecology's review has been extended to April 18, 2011. Ecology stated that an agreement had been reached for ORP to deliver a letter to Ecology transmitting a modified document on the demo plan. ORP responded that the letter on the demo plan is in WRPS review and will then be sent to ORP for review and submittal to Ecology. ORP estimated the letter would be transmitted to Ecology in a month, but will provide a definitive date to Ecology.

M-045-82, Submit Complete Permit Mod Requests for Tiers 1, 2 & 3 of the SST Due:  
 9/30/2015

ORP provided Ecology today a closure schedule for C Farm, which includes a performance assessment schedule and reviews.

#### Significant Past Accomplishments

ORP noted that the significant past accomplishments and planned activities in the next six months are listed in the Consent Decree package.

#### Issues

ORP stated that the closure schedule for C Farm (see M-045-82) does not include the EIS schedule; however, the performance assessment and closure activities are the basis for the EIS schedule. The EIS will go to DOE Headquarters in May 2011 for review, and then the final DOE-ORP internal review will be completed in the November-December 2011 time frame. It was noted that the green-colored activities on the schedule are on schedule, and the red indicates critical path activities.

#### Tank in Appendix H. Status - Single Shell Waste Retrieval Criteria

Tank 241-C-106 is currently in Appendix H status. There were no issues to report.

#### C-Farm Retrieval Reflects Baseline Schedule as of 12/3/10

Ecology stated that the parties have been working on the critical path, or schedule, for tank retrievals, and noted that it was not included in the baseline schedule. ORP responded that a meeting is scheduled with Ecology on February 28, 2011 to finalize the schedule, and following that it will be incorporated into the baseline schedule.

#### Tank Retrievals with Individual Milestones

ORP stated that in response to Ecology's request to retrieve another tank in place of 241-S-102, the intent is to propose retrieving the tenth tank from the A/AX Farm.

#### SST Retrieval and Closure Program

ORP provided this status from the Consent Decree package. A series of ongoing meetings with Ecology are being held to discuss Milestone D-00B-02. ORP noted a correction regarding the meeting scheduled for February 3, 2011 to discuss the 242-A Evaporator. The meeting has been moved to this afternoon.

The testing for the Mobile Arm Retrieval System (MARS) is going well, and ORP plans to have it installed in tank C-107 and start retrieval by late spring 2011. ORP stated that retrieval in tank C-104 is progressing well. The foot valve has been removed that was stuck on the bottom of the tank when the legacy heel jet pump was pulled out. The current pump in the tank is now about three inches off the bottom.

#### Tank Waste Retrieval Work Plan (TWRWP) Status

ORP pointed out corrections under issues (pg. 7 of CD package). The first bullet should read



“WDOE (Ecology) requested a schedule for any future TWRWP changes.” The second bullet should read “ORP wants to issue....and WDOE wants to resolve second and third technology discussion.” ORP stated that currently WRPS is meeting internally to reach consensus on how to discuss the second and third technologies and how to revise those technologies that are in the TWRWPs. WRPS has indicated it would be ready to meet with ORP and Ecology during the second week of March 2011. ORP stated that, for example, the second technology of modified sluicing and in-tank vehicle (MS-ITV) could be replaced with the MARS system, and the TWRWPs will continue to be an iterative process as it is learned how to do retrievals better over time.

Ecology noted it has not approved ORP’s Tank Retrieval Technology Roadmap, and the challenge will be for the parties to reach agreement on what the CD second and third technology is and what the process will be. Yakama Nation (YN) asked to be kept apprised of the process for determining second and third technologies. Ecology stated that the goal will be to communicate with the public so it can follow the process and decisions that are made.

#### 242-A Evaporator Status

ORP stated that the evaporator is undergoing facility upgrades in FY11, and will start campaigns in FY12. EPA asked how long the evaporator will be used after the upgrades are completed. Ecology stated that campaigns are planned into the late 2020s or beyond. ORP stated that after 2015, the plan is to ramp up to four or five campaigns a year. ORP noted that the evaporator was built in 1974, and the wiped film evaporator (WFE) technology is being considered as a backup. Ecology noted that if the Waste Treatment Plant is brought on line early in 2014, then realistically the number of campaigns would be six to eight per year. ORP concurred, and indicated that six to eight campaigns could be achieved. Ecology also noted that the operating permit has an integrity assessment program that is reviewed on a regular basis, and periodically a Professional Engineer (PE) performs an inspection on the systems.

#### **M-45-91, SST Integrity Assurance**

ORP stated that these new milestones and target dates are the result of recommendations on single shell tanks (SSTs) from a panel of experts and then follow-up negotiations with ORP and Ecology to decide which recommendations should be implemented as milestones and target dates. The milestones are set up as a phased approach. The first phase is considered the foundation of an enhanced SST integrity program that involves information gathering; and the second phase, starting in 2015, will be to evaluate all the information gathered to date and determine whether new milestones need to be established.

EPA asked if milestones M-045-91F-T04 and M-045-91F will be utilizing existing information or if new data will be collected. Ecology explained that there won’t be new data collected in the sense of sampling or going into a tank, but it will be the first time that all the historical information is gathered and reviewed in an effort to determine what caused tank failure or leaks. Ecology noted that there were some overflow events that were not a result of tank failure.

### **Interim Stabilization Consent Decree**

ORP reported that the formal documentation for completion of interim stabilization of tank S-102 was submitted to Ecology, and Ecology has reviewed and concurred with the determination. ORP and Ecology legal are working towards closure of this Consent Decree.

### **In Tank Characterization and Summary**

ORP stated there were no issues to report. Ecology noted that there is an ICD-19 DQO in process, and asked to be kept apprised.

### **M-62-40, System Plan**

Ecology provided an update on the system plan. The assumptions for Rev. 6 of the system plan have been approved through workshops with Ecology, DOE-ORP and the contractors. Ecology stated that the Hanford Advisory Board (HAB) has been given time frames during the calendar year to provide input, and the Tank Waste Committee has been satisfied with the information that has been presented.

### **Tank Farm Project EVMS Status (Cost & Schedule Performance)**

ORP provided a brief description of the WRPS project performance table (pg. 23 of TPA package). The red shaded cells indicate a negative variance (values less than .90) with a need to review; the green shaded cells indicate a negative variance (values between .90 and .99); and blue shaded cells indicate the project performance is under budget and ahead of schedule (value greater than or equal to 1.) Currently the overall project is on schedule and under budget. YN asked about the hose-in-hose transfer line (HIHTL) disposition. ORP responded that the HIHTLs are managed under a hose-in-hose management plan, and are disposed of at ERDF when they reach the end of their life span. YN noted that the report states that several HIHTLs did not require flushing. ORP stated that the lines are always flushed, and the report was referring to no additional flushing required due to lower than anticipated contamination levels.

### **Complete Acquisition of Facilities and Submit Part B Permit Applications (M-90-00, M-47-00, M-62-40)**

ORP stated that the "equivalent" critical decision 0 (CD-0) for the High Level Storage Facility (HSF) is in EM-3 waiting approval. ORP noted that it is considered equivalent to CD-0 because it is not a capital project, but it is following a parallel path to a CD-0.

### **WTP TPA Milestone Information**

ORP stated that per agreement with Ecology, the monthly Project Managers Meeting (PMM) will cover in more detail the status of all the facilities, and the TPA Quarterly Milestone Review meeting will provide more of the bigger picture of the WTP project. ORP noted that a delegation

from the WTP is currently in Washington D.C. in an effort to maintain Congressional support for the funding profile.

M-062-49, Submit a Report to Ecology Demonstrating that the WTP is Designed to Accomplish, Pretreat 100% of Retrievable Waste, Vitrify 100% of Separated High Level Waste, WTP LAW with Supplemental Treatment Can Vitrify 100% of Separated Low Level Waste Stream, Due: 10/31/2011

ORP stated that more detail and schedule will be provided at the next PMM on the progress of this milestone. The milestone report will be based off model runs completed to date. There is a possibility of conducting another model run in support of the report, and it will include a statement about how the additional model run ties into existing design parameters. The second Low Activity Waste (LAW) assumptions for LAW, which are written into the milestone, will be included.

Ecology raised a question regarding two scenarios that have emerged through discussions in meetings. The first one is that the Pretreatment Facility (PT), through first and second LAW, will accommodate 100 percent of the waste feed. The second scenario is that a second supporting PT function will be required periodically throughout the life cycle of the WTP mission. The logic behind a second PT is the need to handle any outages that might occur, and the assumption that PT cannot handle 100 percent of the waste feed to LAW and second LAW.

ORP responded that there are no models to date that indicate PT is not capable of handling 100 percent throughput. ORP stated that documents provided by the Environmental Management Advisory Board (EMAB) indirectly suggested that a second PT capacity was needed, and ORP has directed the EMAB to revise its documentation to remove any inference to the need for a second PT. ORP noted that if LAW is started up earlier than planned, and prior to PT being fully functional, there will be a need for some PT capability.

Ecology summarized that the M-062-49 report will provide clear direction about how to proceed and the systems and components necessary to complete the mission. ORP stated that the completion of the milestone will certify that the WTP plant is capable of accomplishing 100 percent of its mission, as designed, without additional PT capacity.

ORP raised the subject of the 2020 vision for WTP, which includes early hot startup for LAW in 2016. The current WTP project schedule calls for LBL construction to be completed in 2016, and a change to the baseline would provide a phased startup for startup, commissioning, and critical decisions. Part of the 2020 vision would require agreement within DOE-ORP to execute early LAW, and a review of funding constraints and technical readiness would also be needed.

Ecology reiterated the need for a permitting schedule since its resources are limited. ORP responded that letters have been sent to BNI and WRPS, directing the contractors to provide a proposal in 60 days (end of March 2011) for an approach to integrating the two contracts and achieving the 2020 vision. Once the proposal is received and evaluated, and if it is deemed acceptable, ORP will proceed to the level 3 and level 4 schedules. ORP estimated that an

integrated permitting schedule would be available by late calendar year 2011.

ORP noted that another element of the 2020 vision, which goes beyond early LAW, is to develop a strategy with the end point in mind, i.e., the 2022 milestone verifying that integrated operations has demonstrated three months of operation. The new Senior Executive Service (SES) position that ORP has designated will be key for managing integration. The SES will be focusing on startup and Operational Readiness Reviews (ORR), and ensuring that procedures, processes and programs as well as construction reach the point of hot operation.



**Agenda**  
**February 17, 2011**  
**Office of River Protection Quarterly Milestone Review Meeting**  
 Ecology Offices, Conference Room 3A/3B  
**Chairperson: Jane Hedges**

Topic	Leads	Time
Statistics / Status	Woody Russell / Dan McDonald / Jeff Lyon	8:30
M-45, -50, -60 Single-Shell Tank Corrective Action	Bob Lober / Joe Caggiano	8:35
M-45-00, Complete Closure of All Single-Shell Tank Farms - Tank in Appendix H Status - 242-A Evaporator Status	Chris Kemp / Jeff Lyon	8:40
M-45-91, SST Integrity Assurance	Jeremy Johnson/ Michelle Hendrickson	8:55
Interim Stabilization Consent Decree	Jeremy Johnson/ Nancy Uziemblo	9:05
In Tank Characterization and Summary	Jeremy Johnson / Michael Barnes	9:10
M-62-40, System Plan	Ron Koll / Dan McDonald	9:20
Tank Farm Project EVMS Status (Cost & Schedule Performance)	Dan Knight / Dan McDonald / Jeff Lyon	9:30
Complete Acquisition of New Facilities and Submit Part B Permit Applications - M-90-00 - M-47-00 - M-62-40	Janet Diediker/ Steve Pfaff / Dan McDonald	9:40
WTP TPA Milestone Information	Wahed Abdul / Dan McDonald / Jeff Lyon	9:55
Statistics / Status	Woody Russell / Dan McDonald / Jeff Lyon	10:15
SST Retrieval and Closure - D-00B-01, -02, -03, -04 - TWRWP Status	Chris Kemp / Jeff Lyon	10:05
WTP - Immobilization Plant Project M-62-20 - M-62-01U, -01V, M-062-49	Wahed Abdul /Jeff Trent / Gary Olsen/ Dan McDonald	10:20
WTP Pretreatment (PT) Facility	Wahed Abdul / Dan McDonald	10:30
High-Level Waste (HLW) Facility	Jeff Trent / Dan McDonald	10:40
Low-Activity Waste (LAW) Facility	Gary Olsen / Dan McDonald	10:45
Analytical Laboratory (LAB)		10:50
Balance of Facilities (BOF)		10:55

*Tri-Party Agreement Office of River Protection Milestone Review  
February 17, 2011*

Name	Organization
Terry Noland	MSA
Kathy Knox	Lake County Knapptonery
Bob Lober	ORP
James J. Lynch	ORP
ROB PIPPO	MSA
GLYN TRENCHARD	ORP TPD
Jeremy Johnson	ORP
PATRICK SWANN	ORP
Woody Russell	ORP
Holly Bowers	WRPS
Lon Huthman	ORP
Alex Teinour,	DOE-EM-SI
Steve Killoy	WRPS
Delmar Noya	DOE-WTP

*Tri-Party Agreement Office of River Protection Milestone Review  
February 17, 2011*

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Office of River Protection  
Tri-Party Agreement  
Project Summary Report  
February 17, 2011





Office of River Protection  
Tri-Party Agreement  
Milestone Review Meeting  
February 17, 2011

Page	Topic	Leads	Time
TPA 1	Statistics / Status	Woody Russell / Dan McDonald / Jeff Lyon	8:30
7	M-45, -50, -60 Single-Shell Tank Corrective Action	Bob Lober / Joe Caggiano	8:35
10	M-45-00, Complete Closure of All Single-Shell Tank Farms - Tank in Appendix H Status - 242-A Evaporator Status	Chris Kemp / Jeff Lyon	8:40
17	M-45-91, SST Integrity Assurance	Jeremy Johnson/ Michelle Hendrickson	8:55
20	Interim Stabilization Consent Decree	Jeremy Johnson/ Nancy Uziemblo	9:05
21	In Tank Characterization and Summary	Jeremy Johnson / Michael Barnes	9:10
22	M-62-40, System Plan	Ron Koll / Dan McDonald	9:20
23	Tank Farm Project EVMS Status (Cost & Schedule Performance)	Dan Knight / Dan McDonald / Jeff Lyon	9:30
36	Complete Acquisition of New Facilities and Submit Part B Permit Applications - M-90-00 - M-47-00 - M-62-40	Janet Diediker / Steve Pfaff / Dan McDonald	9:40
38	WTP TPA Milestone Information	Wahed Abdul / Dan McDonald / Jeff Lyon	9:55
CD 1	Statistics / Status	Woody Russell / Dan McDonald / Jeff Lyon	10:15
5	SST Retrieval and Closure - D-00B-01, -02, -03, -04 - TWRWP Status	Chris Kemp / Jeff Lyon	10:05
8	WTP - Immobilization Plant Project M-62-20 - M-62-01U, -01V, M-062-49	Wahed Abdul / Jeff Trent / Gary Olsen/ Dan McDonald	10:20
10	WTP Pretreatment (PT) Facility	Wahed Abdul / Dan McDonald	10:30
14	High-Level Waste (HLW) Facility	Jeff Trent / Dan McDonald	10:40
17	Low-Activity Waste (LAW) Facility	Gary Olsen / Dan McDonald	10:45
20	Analytical Laboratory (LAB)		10:50
22	Balance of Facilities (BOF)		10:55

### Fiscal Year 2010 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
M-045-56F	Ecology and DOE agree, at a minimum, to meet yearly (by July or as needed to support annual budgeting) for the specific purpose of assessing the adequacy of information, and the need for the establishment of additional agreement interim measures.	07/31/10	06/09/10										
M-045-90	Complete Interim Barrier Demonstration Report for the T-106 Interim Barrier	09/30/10	09/27/10										
M-045-91	Establish a Panel and Report on SST Integrity Assurance Review	09/30/10	09/27/10										
M-045-92A	Establish Selection Criteria for Inst. of Additional Barriers	03/31/10	03/24/10										
M-045-92B	DOE Submit to Ecology a Final Design and Monitoring Plan for TY Farm Interim Barrier	03/31/10	10/22/09										
M-045-92C	Complete Installation of TY Farm Interim Barrier	09/30/10	09/23/10										

## Fiscal Year 2010 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
M-062-01T	Submit Semi-Annual Project Compliance Report	01/31/10	01/29/10										
*M-062-01U	Submit Semi-Annual Project Compliance Report	07/31/10	07/26/10										
* Submittal pursuant to D-00C-01 series satisfies M-062-01 series reporting.													

Fiscal Year 2011 Tri-Party Agreement Milestone Status													
Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
M-062-40A	Select a Minimum of 3 scenarios	10/31/10	10/27/10										
D-001-00-R46	Quarterly Report	10/31/10	10/28/10										
M-045-100	Submit to Ecology an Agreement Primary Document a Catch Tank “Assumed Leak” Response Plan.	12/27/10	12/28/10										
M-045-101	Submit to Ecology as an Agreement Primary Document a Report on all Catch Tanks and Pipelines Used for SST Operations	12/27/10	12/28/10										
M-045-91A	Submit an Agreement Change Package with Interim Milestones to Implement the Panel’s Recommendations M-045-91	12/29/10	09/27/10										
M-045-92D	Complete Negotiations to Schedule Remaining 4 Additional Barriers	12/31/10	12/7/10										
M-045-92E	Meet Yearly on Performance of Barrier	12/31/10	12/7/10										



Fiscal Year 2011 Tri-Party Agreement Milestone Status													
Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
M-062-20	Complete All 28 Issues in Independent WTP Flowsheet & Throughput Assessment	12/31/10	08/20/10										
M-045-80	Complete those Portions of C-200 Closure Demonstration Plan Necessary to Complete Closure Plan Development for SST System	01/31/11	12/28/10										
M-062-01V	Submit Semi-Annual Project Compliance Report	01/31/11	01/27/11										
D-001-00-R47	Quarterly Report	01/31/11	01/28/11										
M-045-91G-T05	Provide Report of the Visual Inspections of 12 SSTs in Table 3.3	03/31/11		X									
D-001-00-R48	Quarterly Report	04/30/11		X									
M-036-01A	Submit to EPA & Ecology Lifecycle, Scope, Schedule & Cost for Hanford Site (RL is DOE Lead)	07/25/11		X									

## Fiscal Year 2011 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
M-045-15	Interim Completion of Tank S-102 SST Waste Retrieval and Closure Demonstration Project.	06/30/11			X							
M-045-15A	Submit a Retrieval Data Report Pursuant to Agreement Appendix I	06/30/11			X							
M-045-15B	Remaining Wastes Adequately Characterized; Risk Assessment Completed for Residuals Remaining in the Tank	06/30/11			X							
M-045-15C	Update S-102 Component Closure Activity Plan	06/30/11			X							
M-045-15D	Exception to Waste Retrieval Criteria Pursuant to Agreement Appendix H	06/30/11			X							
D-001-00-R49	Quarterly Report	07/31/11		X								
M-045-56G	Ecology and DOE Agree to Meet, at a Minimum, Yearly (by July)	07/31/11		X								
M-062-01W	Submit Semi-Annual Project Compliance Report	07/31/11		X								

## Fiscal Year 2011 Tri-Party Agreement Milestone Status

Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
M-045-91C	Implement DQO Process, Test Plan to Evaluate the Chemistries	09/30/11		X									
M-045-91G-T01	Provide AOR Final Doc. For SSTs on 530,000 Gallon Tanks	09/30/11		X									
M-045-92F	Meet Yearly on Performance of Barrier	12/31/11		X									
M-045-13	Interim Completion of Tank S-112 SST Waste Retrieval and Closure	TBD [In accordance with M-045-84 or -85]		X									
M-045-13E	Complete Negotiations for Interim Milestones for Closure of S-112	TBD [In accordance with M-045-84 or -85]		X									

## **WBS 5.2 Retrieve and Close Single Shell Tanks**

**M-045-58, Submit to Ecology for Review and Approval as an Agreement primary document, a phase 2 CMS Master Work Plan, Due: 12/31/08 Status: Complete.**

Master Work Plan is in the Primary document revision process. ORP transmitted its response to Ecology on August 18, 2010. Ecology extended review of comment responses to October 29, 2010. Ecology requested at the October PMM a two week extension from October 27, 2010. ORP acknowledged that Ecology's comment response will be considered in abeyance until DOE-ORP, Ecology, and EPA complete their negotiation of the AIP applicable to Appendix I. Ecology assumed that negotiations would be done December 24, 2010. They have been extended.

**M-045-60, Submit to Ecology for review and approval as an Agreement primary document DOE's Phase 2 RFI/CMS Work Plan and Sampling and Analysis Plan (SAP) for WMA C, Due: 12/31/08, Status: Complete.**

ORP and Ecology continue to meet monthly to identify and manage changes in the workplan. Last meeting was November 17, 2010. (The December meeting was not held due to the holidays. The next meeting is planned for January 27, 2011.) Meeting minutes for the November 17 session have been mutually signed by the parties and are being documented via approved meeting minutes entered into TPA administrative record and applicable change requests.

**M-045-92D, Complete negotiations to schedule the remaining 4 additional barriers, unless DOE and Ecology agree that monitoring data does not support continued installation of interim barriers. Due: 12/31/2010, Status: Complete (12/7/10).**

"If negotiated, complete installation of 4 additional interim barriers at a rate of one per year, with the first being completed by June 30, 2012. Prior to beginning construction and at least one year before construction is to be complete (06/30/2011), DOE will submit to Ecology a final design and monitoring plan for each interim barrier."

In the 12/7/10 meeting, Ecology and ORP agreed to develop a change package moving the due date for the third barrier from June 30, 2012 to October 30, 2012, with the final design and monitoring plan to be completed by June 30, 2011 (16 months prior). The rationale for moving the due date back is to take full advantage of the construction season.

**M-045-92E, DOE and Ecology will meet yearly to review the monitoring data, agree to changes in monitoring (if needed) and assess the performance of the demonstration barrier, Due: 12/31/2010, Status: Complete (12/7/10).**

**M-045-56G, Complete Implementation of Agreed to Interim Measures, Due: 07/31/11, Status: On Schedule**

**M-045-92F, DOE and Ecology will meet yearly to review the monitoring data, agree to changes in monitoring (if needed) and assess the performance of the demonstration barrier, Due: 12/31/2011, Status: On Schedule**



**M-045-61, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 RFI/CMS Report for WMA C, Due: 12/31/14, Status: On Schedule**

**M-045-62, Submit to Ecology for review and approval as an Agreement primary document a Phase 2 Corrective Measures Study Report for WMA C, Due: 06/30/2015, Status: On Schedule**

**M-045-92, DOE and Ecology will establish selection criteria for installation of additional interim barriers at additional WMAs (beyond the T-106 and TY barriers), Due: 9/30/2016, Status: On Schedule**

**M-045-59, Control surface water infiltration pathways as needed to control or significantly reduce the likelihood of migration of subsurface contamination to groundwater at the SST WMAs (pending the CMS report, milestone M-45-58, and implementation of other interim corrective measures), Due: TBD, Status: On Schedule**

#### **Significant Past Accomplishments:**

- T-Farm interim barrier monitoring continues.
- TY Interim Barrier Construction monitoring continues.
- Continued direct push characterization in C Farm at various planned locations
- Continued the joint process with Ecology and other regulatory agencies and stakeholders to define the inputs, approaches, assumptions and methods that will be used for development of a performance assessment for Waste Management Area C.
- Continued remediation technology assessments in support of a Corrective Measures Study for WMA C.
- Continued 3-D SGE data collection from western 241-BY farm, including depth electrodes placed by direct push.
- Continued design activities for a surface barrier in 241-SX farm.
- Continued direct push campaign in eastern BY farm, supporting Interim Barrier.
- Continued the Data Quality Objective process for the Phase 2 RFI-CMS work plan for WMA A/AX.
- Initiated reanalysis of well-to-well resistivity data from C Farm using recent advancements in codes and hardware.

#### **Significant Planned Actions in the Next Six Months:**

- Continue direct push campaign in C Farm.
- Complete direct push campaign in Eastern BY Farm, supporting Interim Barrier Design and Placement.
- Initiate direct push campaign in S-Farm in support of a future interim barrier.
- Complete resistivity data analysis for western BY Farm, supporting interim barrier design.
- Complete resistivity data collection for 3-D SGE characterization of UPR-82 in C Farm.
- Continue remediation technology assessments in support of a Corrective Measures Study for WMA C.

- Process the TPA change with the updates to the WMA C work plan.
- Perform additional updates to WMA C RFI/CMS workplan based on requested changes from Ecology.
- Complete design of interim surface barrier for SX farm.
- Complete the Data Quality Objective process for the Phase 2 RFI/CMS work plan for waste management area A/AX.

**Issues:**

ORP would like to address Ecology's request for additional RFI/CMS milestones as part of the next tank farm closure discussions underway.

## **SST Retrieval and Closure Program**

**M-045-100, Submit as a primary document a Catch Tank "assumed leak response plan,**  
Due: 12/27/10, Status: Complete (12/28/10).

**M-045-101, Submit to Ecology as a primary document a report on all catch tanks and associated pipelines in the SST System Part A,** Due: 12/27/10, Status: Complete (12/28/10).

**M-045-80, Complete those portions of C-200 Closure Demonstration Plan,** Due: 1/31/2011  
Status: Completed 12/28/10. The four deliverables required under M-045-80 have been completed and were formally transmitted from ORP to Ecology via 10-TPD-166 on December 26, 2010.

**M-045-81, Implement & complete all remaining activities in C-200 Closure Plan and provide a report of the results of those activities,** Due: 9/30/2014, Status: Completed 12/28/10. The first deliverable specified in the closure demonstration plan, a Pipeline Feasibility Study, has been completed and was formally transmitted from ORP to Ecology via 10-TPD-166 on December 26, 2010.

**M-045-82, Submit complete permit mod requests for Tiers 1, 2, & 3 of the SST,** Due: 9/30/2015 Status: On Schedule

**M-045-84, Complete negotiations of TPA interim MS for closure of second WMA,** Due: 1/31/2017, Status: On Schedule

**M-045-83, Complete the closure of WMA C,** Due: 6/30/2019, Status: On Schedule

**M-045-85, Complete negotiations of TPA interim MS for closure of remaining WMAs,** Due: 1/31/2022, Status: On Schedule

**M-045-70, Complete waste retrieval from all remaining SSTs,** Due: 12/31/2040, Status: On Schedule

**M-045-00, Complete Closure of all Single Shell Tank Farms,** Due: 1/31/2043, Status: On Schedule

**M-045-86, Submit retrieval data report to Ecology for 19 tanks retrieved,** Due: TBD (12 months after retrieval certification), Status: On Schedule

**Significant Past Accomplishments:****Significant Planned Activities in the Next Six Months:****Issues:**

- C-106 Closure Plan approval and SST radiological Categorical Notice of Construction (NOC) Phase 3 (closure) and a toxics categorical NOC application are pending completion of the Tank Closure and Waste Management Environmental Impact Statement (EIS) and associated Record of Decision (ROD); forecast completion for the final EIS ROD is in the Winter of 2011.
- Ecology would like to get a critical path from USDOE for WMA-C Closure including EIS deliverables by the February Quarterly Meeting. This request was put on the Action Log.
- The Richland Office of USDOE has proposed an IS-1 alternate to the planned deliverable, as we understand the "IS-1 Common Vision" discussion on 1-18-11. IS-1 requires the delivery of an RFI/CMS that would include Tank Farm Pipelines. Ecology remains unclear on the objective of the USDOE Plans for IS-1 but must have this work plan to ensure that we can complete the SST Closure plan on schedule for the TPA milestones. This should be included in the Critical path as well.

## **Tank in Appendix H. Status - Single Shell Waste Retrieval Criteria**

### **Tank 241-C-106**

#### **Significant Past Accomplishments:**

None

#### **Significant Planned Activities in the Next Six Months:**

- Continue U.S. Nuclear Regulatory Commission (NRC) review of the C-106 exception request. A Request for Additional Information (RAI) was received from the NRC in February 2009. (It has been discussed with the NRC that much of the additional information requested is dependent upon development of C-Farm residual waste PA and, therefore, cannot be provided until the PA is published.)
- Continue PA workshops with Ecology, EPA, NRC, and DOE HQ focused on residual waste in C Farm tanks and pipelines following retrieval.
- ORP has requested an alternate milestone of the M-045-15, Tank 241-S-102 retrieval milestone.

#### **Issues:**

**C-Farm Retrieval 12/7/2010 Reflects Baseline as of 12/3/10 (incorporates BCRs-032 and 033)**



## **Tank Retrievals with Individual Milestones**

### **Tank 241-S-102**

**M-045-15, Interim Completion of Tank S-102 SST Waste Retrieval and Closure Demonstration Project**, Due: 6/30/11 Status: At Risk. See discussion below under "Issues". Change Request M-45-07-01 approved by DOE and Ecology on December 4, 2007.

**M-045-15A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I**, Due: 6/30/11, Status: At risk. See discussion below under "Issues".

**M-045-15B, Embedded Milestone, Remaining Wastes have been adequately Characterized, and a Risk Assessment has been completed for residuals that remain in the tank**, Due: 6/30/11, Status: At risk. See discussion below under "Issues".

**M-045-15C, Embedded Milestone, An update to the S-102 Component Closure Activity Plan has been submitted by DOE**, Due: 6/30/11, Status: At risk. See discussion below under "Issues".

**M-045-15D, Embedded Milestone, if appropriate, DOE has requested an exception to waste retrieval criteria pursuant to Agreement Appendix H**, Due: 6/30/11, Status: At risk.

#### **Significant Past Accomplishments:**

None

#### **Significant Planned Activities in the Next Six Months:**

None

#### **Issues:**

- Tank S-102 retrieval by June 30, 2011 is at risk. It is technically imprudent to attempt to accelerate retrieval of S-102, at this time, because of the rheological nature of the waste.
- In a letter dated August 15, 2006, Ecology stated that submittal of Component Closure Activity Plans, for retrieved tanks, should continue to be suspended until June 30, 2009, or within 120 days after the Final Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS) Record Of Decision (ROD) is issued, whichever is earlier. In a letter dated November 12, 2009, Ecology extended its suspension until 180 days after the issuance of the final TC&WM EIS. It is anticipated that the final TC&WM EIS will not be issued until the Winter of 2011. Submittal of the Closure Plan could not occur, then, until several months after the M-45-15 milestone is due.

**Tank 241-S-112**

**M-045-13, Interim Completion of Tank S-112 SST Waste Retrieval and Closure Demonstration Project**, Due: TBD (in accordance with M-045-84 or M-045-85), Status: On Schedule

**M-045-13E, Complete Negotiations for Interim Milestones for Closure of S-112**, Due: TBD Status: On Schedule as part of M-045-84 and M-045-85.

**Significant Past Accomplishments:**

- Ecology letter of January 7, 2008, concurred with ORP that retrieval of Tank S-112 is complete.

**Significant Planned Activities in the Next Six Months:**

None

**Issues:**

None

**Complete Closure of Double Shell Tanks**

**M-042-00A, Complete closure of all double shell tank farms**, Due: TBD, based upon completion of retrieval under M-62-45 plus 5 yrs but no later than 9/30/2052 Status: On Schedule

**Significant Past Accomplishments:**

None

**Significant Planned Actions in the Next Six Months:**

None

**Issues:**

None



## 242-A Evaporator Status (previously reported under Milestone M-48, which has been closed out)

### 242-A Campaign strategy:

One (1) cold run (utilizing water only) and two (2) waste processing campaigns were completed in FY2010. No additional campaigns are anticipated in CY2011 due to ongoing 242-A and Tank Farm Life Extension and ARRA funded facility upgrades. The 242-A Campaign Strategy for FY2010 through FY2015 depicted below has been updated based on ORP-11242, River Protection Project Plan, Revision 5, and ongoing schedule integration efforts.

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
FY10	10-01	AW-106	AW-106	Campaigns 10-01/10-02 were performed back-to back starting in late August and completing in early October 2010. Campaign 10-02 was an acceleration of previously planned Campaign 11-01.
FY10	10-02	AW-106	AW-106	
FY11	NA	NA	NA	No campaign planned in FY11 due to ongoing 242-A and Tank Farm facility life extension and ARRA funded upgrades.
FY12	12-01	AP-107 AZ-102	AP-104 AP-107	Estimated start June 2012. Anticipates blending AZ-102 high cesium concentration with AP-107 waste. May require two (2) passes to achieve waste volume reduction.
FY12	12-02	AP-107 AZ-102	AP-107	Estimated start August 2012. Anticipates blending AZ-102 high cesium concentration with AP-107 waste. May require two (2) passes to achieve waste volume reduction.
FY13	13-01	AW-106	AP-107	Estimated start March 2013. Two (2) passes required.
FY13	13-02	AZ-101 AN-101 AW-106	AP-107	Estimated start September 2013. Two (2) passes required.
FY14	14-01	AN-106 AZ-102 AW-106	AP-107	Estimated start March 2014. Two (2) passes required.
FY15	15-01	AY-101 AZ-102	AP-107	Estimated start March 2015. Three (3) passes required.
FY15	15-02	AY-101	AP-107	Estimated start August 2015. Four (4) passes required.

## **SST Integrity Assurance**

**M-045-91G-T05, Provide to Ecology a report documenting and evaluating the visual inspection of 12 SSTs per the criteria listed in Table 3.3 in RPP-PLAN-46847, Rev.0, Due: 3/31/2011, Status: On Schedule**

**M-045-91C, implement the DQO process to develop and provide Ecology a Test Plan to evaluate the chemistries as specified in RPP-RPT-43 116. Rev 0, Due: 9/30/2011, Status: On Schedule**

**M-045-91G-T01, Provide to Ecology the Structural Analyses of Record final documentation for SSTs for 530, 000 gallon tanks (B, BX, C, T and U Farms), Due: 9/30/2011, Status: On Schedule**

**M-045-91B, Submit a Sampling and Analysis Plan to Ecology for the sampling of sidewall cores from tank 241-A-106 or alternate tank approved by Ecology, Due: 12/30/2011, Status: On Schedule**

**M-045-91F-T01, Provide to Ecology as a HFFACO secondary document a report evaluating the applicability to Hanford SSTs of the liquid leak rate assessments of sludge and salt-cake from the Savannah River Site, Due: 1/31/2012, Status: On Schedule**

**M-045-91F-T02, Provide to Ecology as a HFFACO secondary document a report evaluating the common factors of liner failures for SSTs that have leaked and will provide recommendations as appropriate, such as enhanced Leak Detection, Monitoring, and Mitigation, Due: 1/31/2012, Status: On Schedule**

**M-045-91G-T02, provide to Ecology the Structural Analyses of Record final documentation for SSTs for 750,000 gallon tanks (BY, S, TX and TY Farms), Due: 1/31/2012, Status: On Schedule**

**M-045-91D, Submit to Ecology an analytical test plan for the cores removed from the C-107 plug, Due: 3/31/2012, Status: On Schedule**

**M-045-91G-T06, Provide to Ecology a report documenting and evaluating the visual inspection of 12 SSTs per the criteria in M-045-91G-T05, Due: 3/31/2012, Status: On Schedule**

**M-045-91G-T03, Provide to Ecology the Structural Analyses of Record final documentation for SSTs for 1,000,000 gallon tanks (A, AX and SX Farms), Due: 9/30/2012, Status: On Schedule**

**M-045-91D-T01, Provide Ecology a report containing the results and interpretation of testing, and analysis performed on the concrete dome samples obtained from the Tank C-107 plug, Due: 5/31/2013, Status: On Schedule**

**M-045-91F-T03, Provide to Ecology, as a HFFACO secondary document a report assessing the feasibility of testing for ionic conductivity between the inside and outside of SSTs, Due: 5/31/2013, Status: On Schedule**

**M-045-91F-T04, provide to Ecology, as a HFFACO secondary document, a report on the 100-series single-shell tanks which have been or will be identified as having leaked in RPP-32681, Rev 0, Due: 7/31/2013, Status: On Schedule.** Ecology and ORP are jointly drafting a Class III Change Request, M-45-11-01, aligning the completion dates of this milestone and M-045-91F-T02 ("Common Factors of Liner Failures for SSTs" report) to ensure all of this milestone's leak evaluations will be available for use in the Common Factors report.

**M-045-91E, Provide to Ecology a compilation of the Single-Shell Tank farms dome deflection surveys every two years, beginning 9/30/2013, Due: 9/30/2013, Status: On Schedule**

**M-045-91G-T04, provide to Ecology the Structural Analyses of Record final documentation for SSTs for 55,000 gallon tanks (B, C, T and U Farms), Due: 10/31/2013, Status: On Schedule**

**M-045-91F, Provide to Ecology a report (Summary Conclusions Report on Leak Integrity) summarizing and evaluating the information submitted under M-045-91F-T01 through -T04, Due: 12/31/2013, Status: On Schedule**

**M-045-91G, Provide a Summary Conclusions Report of Structural Analysis of Record (AOR) for SSTs, Due: 4/30/2014, Status: On Schedule**

**M-045-91B-T01, Provide Ecology a report containing the results and interpretation of testing and analysis, performed on the concrete core obtained from Tank A- 106 or alternate tank, Due: 9/30/2014, Status: On Schedule**

**M-045-91H, Submit a change package (if deemed necessary by DOE and Ecology) to establish additional milestones based on information obtained from the actions in the preceding M-045-91 series milestones to date, Due: 7/31/2015, Status: On Schedule**

**M-045-91I, Provide to Ecology an IQRPE certification of SSTs structural integrity for the remainder of the mission, or for such time as the IQRPE believes he/she can reasonably certify, Due: 9/30/2018, Status: On Schedule**

**Significant Past Accomplishments:**

- Change Package M-45-10-01 was signed by ORP on 12/28/10 and Ecology on 1/3/11.

**Significant Planned Actions in the Next Six Months:**

- M-045-91B: Begin DQO sessions for side-wall coring. First meeting scheduled for 2/08/11.
- M-045-91C: Begin developing a Test Plan to investigate chemistries as specified in RPP-43116.
- M-045-91D: Begin analytical test plan development for Tank C-107 dome core analyses efforts.
- M-045-91G-T05: Submit Visual Inspection Report for 12 SST's completed during FY 2010.

**Issues:**

## **Interim Stabilization Consent Decree**

### **I. Near-Term Deliverables:**

#### **D-001-00, Complete Interim Stabilization of all 29 SSTs**

Due: 09/30/04

Status: Completed on March 31, 2004, with discontinuation of pumping in U-108 and subsequent consultation with Ecology staff. Interim stabilization of S-102 and S-112 is held in abeyance by third amendment to the Consent Decree. ORP's obligation to interim stabilize S-112 was satisfied upon completion of retrieval operations. Retrieval of S-102 has been impacted by the spill at this tank. A review of the January 25, 2010, video of the tank has shown approximately 2,400 gallons of supernatant liquid remaining. This is below the criteria for interim stabilization of less than 5000 gallons supernatant liquid.

On October 21, 2010, ORP received a letter from Ecology notifying ORP of Ecology's decision to require ORP to Interim Stabilize tank 241-S-102 within 18 months of receipt of its notification. ORP transmitted the required documentation to Ecology to demonstrate that tank 241-S-102 meets the requirements for interim stabilization, as set forth in Case Number CT-99-5076, Third Amendment on December 9, 2010 via letter 10-TPD-163.

### **II. Significant Accomplishments:**

- Quarterly report for 1<sup>st</sup> quarter FY11 transmitted to Ecology on 1/31/11 under letter 11-TPD-009.
- Formal documentation for completion of S-102 interim stabilization submitted to Ecology 12/9/10

### **III. Significant Planned Actions in the Next 6 Months:**

- None

### **IV. Issues**

- None

## **In Tank Characterization and Summary**

For the period from January 1 – January 31, 2011:

### **I. Accomplishments:**

- Completed Revision 0 of RPP-RPT-46791, *Compilation of Laboratory Scale Aluminum Wash and Leach Report Results*, on 1/6/11.
- Completed Revision 0 of spreadsheet SVF-2053 for Unit Liter Dose Calculations on 1/25/11.
- Completed Revision 0 of spreadsheet SVF-2042 of Unit Sum of Fractions on 1/13/11.

### **II. Planned Action within the next Six Months:**

- Tank Sampling
  - HEPA filter sampling scheduled for March 2011.
  - Tank 241-C-109 off riser sampling scheduled for February 2011.
  - Tank 241-AY-101 corrosion mitigation grab samples scheduled for June 2011.
  - Tank 241-AP-105 corrosion mitigation grab samples scheduled for March 2011.
  - Tank 241-C-104 off riser sampling scheduled for June 2011.
  - Tank 241-AW-106 evaporator sample scheduled for April 2011.
- BBI Updates
  - Seven tank updates are planned for FY11 Quarter 2. All seven updates have been started.
- Data Quality Objectives (DQO)
  - Complete revision 18 of the Compatibility DQO in March 2011.
  - Complete revision 3 of the PCB Management DQO in April 2011.
  - Complete revision 0 of the C-108 Hard Heel Dissolution DQO in February 2011.
  - Complete revision 0 of the Tanks in 244-CR Vault in May 2011.
  - Complete revision 1 of the Tank 241-C-301 retrieval enclosure DQO in March 2011.

### **III. Issues:**

None

## System Plan

**M-062-40B, Submit a system plan describing the disposition of all tank waste managed by ORP, Due: 10/31/2011, Status: On Schedule**

**M-062-40C, Select a minimum of three scenarios that will be analyzed in the system plan, Due: 10/31/2013, Status: On Schedule**

**M-062-40D, Submit a system plan describing the disposition of all tank waste managed by ORP, Due: 10/31/2014, Status: On Schedule**

**M-062-40ZZ, Submit a one-time Tank Waste Supplemental Treatment Technologies report if a supplemental treatment technology is proposed other than a 2nd LAW, Due: 10/31/2014, Status: On Schedule.**

**M-062-45-T01, Every six years, within six-months after last revision of the System Plan, negotiate tank waste retrieval sequencing, Due: 4/30/2015, Status: On Schedule**

### **Significant Past Accomplishments:**

The Key Assumptions and Success Criteria for RPP System Plan Revision 6 was approved on 2/1/11. The System Plan Annotated Outline was reviewed and comments were incorporated during January. A large amount of HTWOS modeling was completed in January, constructing building blocks for the 10 scenarios.

### **Significant Planned Actions in the Next Six Months:**

Work on System Plan Rev. 6 supporting M-062-40B during the next six months will include the following activities: Prepare model modification requests, complete HTWOS modeling, V&V and data analysis and perform periodic reviews with ORP and Ecology. The first version of the Baseline Scenario is planned to be completed in February, prior to adjustments for budget constraints.

### **Issues:**

None.

## TANK OPERATIONS CONTRACT (TOC) OVERVIEW

### Project Performance

The earned value analysis is a comparison of cost and schedule contract-to-date performance. The earned value performance reporting reflects the format, Work Breakdown Structure (WBS) reporting levels, and variance thresholds as agreed to with the Tank Farms Operations Contractor (TOC) for monthly performance reporting. The earned value analysis is not intended to be a measurement of performance against existing Tri-Party Agreement Milestones.

WRPS Project Performance - (\$k)									
BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
\$33,862.5	\$32,115.2	\$33,376.8	(\$1,747.2)	(\$1,261.6)	0.95	0.96	\$490,469.4	\$482,423.6	\$8,045.8
\$140,778.8	\$140,966.4	\$139,817.8	\$187.6	\$1,148.5	1.00	1.01	\$490,469.4	\$482,423.6	\$8,045.8
\$900,834.5	\$894,200.0	\$831,940.8	(\$6,634.4)	\$62,259.3	0.99	1.07	\$2,101,977.7	\$2,033,686.8	\$68,290.9
Red shaded cells indicates a SPI/CPI less than .90; Green shaded cells indicate a SPI/CPI between .90 and .99; and Blue shaded indicates a SPI/CPI greater than or equal to 1.									

The unfavorable current month (CM) schedule variance (SV) of **(\$1,747k)** is driven by several RA projects including:

1. *RA- Sampling Operations* of **(\$704k)** due to delays in design impacting fabrication and construction; *RA- Double Shell Tank (DST) Valve Assembly Upgrades* of **(\$520k)** due to delays in delivery and installation of AP and AN Valve Pit jumpers and AZ valve funnels and positioning plates.
2. *RA- Exhauster Upgrades* of **(\$339k)** due to delays in issuing the AP/SY 90% design resulting from comment incorporation; *RA- 242-A Evaporator Upgrades* of **(\$315k)** due to the performance “give-back” for work completed early on instrument replacements.
3. *RA- 272AW Refurbishment* of **(\$284k)** due to the management decision to discontinue work (a Baseline Change Request (BCR) is in process to address).

The unfavorable variance in RA is partially offset by favorable variances in Retrieval Closure including:

1. *C-107 Retrieval* of \$625k is due to the recovery progress related to the installation of the new large riser; and in *RA-Technology Development* of \$596k is due to the recovery progress related to the Mobile Arm Retrieval System (MARS) vacuum system engineering, fabrication and testing.

The unfavorable CM cost variance (CV) of **(\$1,262k)** is driven by the **(\$2,168k)** CV in the *Hanford Pension Fund* resulting from the CM point adjustment due to the implementation of the new payment plan.

1. *RA- Industrial Hygiene Program* of **(\$477k)** due to the CM point adjustment resulting from the re-spreading of Budget Cost of Work Scheduled (BCWS) over 12 months.
2. *RA- WFE Technology Maturity Validation* of **(\$471k)** due to procurement costs accrued and invoiced for work performed earlier.



These unfavorable CVs are partially offset by favorable CVs including:

*RA- Technology Development* of \$674k due to cost efficiencies in subcontract work on the Mobile Arm Retrieval System (MARS) vacuum system gained from experience and lessons learned on the MARs sluicer (vacuum system tasks have required fewer and lower-tier resources than planned).

1. *DST Integrity Project* of \$577k due to cost efficiencies on the encasement pressure checks by working in conjunction with crane and rigging support for the AP Valve Funnels and cost efficiencies on the Transfer System Integrity Assessments.
2. *RA- SY Transfer Line Upgrades* of \$392k due to direct and subcontract labor efficiencies resulting from the consolidation of work for excavations, line removal and core drilling of pits.
3. *C-107 Retrieval* of \$350k due to performance taken and cost efficiencies realized in installation of the new large riser.

The unfavorable contract to date (CTD) SV of (\$6,634k) is driven by significant variances in Retrieval Closure and RA work.

1. These unfavorable variances include: *C-108 Retrieval* of (\$1,588k) due to delays in hard heel removal resulting from prioritization of resources to other retrievals.
2. *RA- Remove Obsolete Equipment* of (\$1,262k) due to delays in field work resulting from competition for field resources to complete two (2) projects.
3. *C-104 Retrieval* of (\$958k) due to pumping delays resulting from obstruction causing need to develop and install the AMS and additional transfer pump replacement.
4. *RA- 272AW Refurbishment* of (\$887k) due to the management decision to discontinue work (a BCR is in process to address).
5. *C Farm Infrastructure DST Receiver Tank 3* of (\$765k) due to the change in designation of tank from AY-101 to AN-106 in order to utilize existing infrastructure from C Farm to AN Farm.
6. *222-S Facility Reliability* of (\$725k) due to scope deferrals not yet implemented.
7. *RA- 242-A Operations* of (\$654k) due to procurement delays and resource constraint.
8. *Next Generation Flowsheet/Glass Chemistry Support* of (\$633k) due to delays in awarding Cold Crucible Induction Melter (CCIM) technology.

These unfavorable SVs are partially offset by favorable SVs including:

1. *RA- DST Valve Assembly Upgrades* of \$2,537k due to the accelerated AP and AN-B valve pit jumper replacements.

2. *242-Evaporator Operation & Maintenance* of \$1,579k due to the acceleration of one (1) of the FY11 waste processing campaigns; and *C-107 Retrieval* of \$1,308k due to the completing the new large riser installation ahead of schedule.

The favorable CTD CV of \$62,259k represents significant cost savings and efficiencies in the areas of:

1. Project Support of \$19,111k; Tank Farm Upgrades of \$12,090k.
  - a. Retrieval/Closure Program of \$10,225k
  - b. WTP Feed Delivery Program of \$5,727k
  - c. Next Generation Projects of \$4,948k
  - d. TOC Facility Operations \$3,927k
  - e. RA Transfer System Modifications Project of \$2,482k
  - f. Secondary Waste Treatment/Effluent Treatment Facility (ETF) of \$1,965k.

*However, CTD cost savings and efficiencies are not expected to be achieved at the same rate in the remainder of FY11 due to incorporation of recognized efficiencies in future budgets and performance challenges imposed due to funding constraints.*

### SUMMARY PROJECT PERFORMANCE

WRPS CTD Project Performance by level 2 WBS (\$k)										
Work Breakdown Structure (WBS) Level 2	CTD BCWS	CTD BCWP	CTD ACWP	CTD SV	CTD CV	CTD SPI	CTD CPI	BAC	EAC	VAC
5.1 - Base Operations	\$613,556.4	\$612,350.4	\$582,282.2	(\$1,206.0)	\$30,068.2	1.00	1.05	\$1,298,053.3	\$1,274,557.6	\$23,495.7
5.2 - Retrieval and Close SST's	\$179,194.0	\$174,411.4	\$164,713.1	(\$4,782.6)	\$9,698.4	0.97	1.06	\$420,236.7	\$403,337.2	\$16,899.5
5.3 - WFD/Treatment Plng/DST Retrieval/Closure	\$102,696.9	\$102,183.4	\$80,219.7	(\$513.5)	\$21,963.8	0.99	1.27	\$347,149.6	\$316,723.7	\$30,425.9
5.4 - Supplemental Treatment	\$5,387.0	\$5,254.7	\$4,725.8	(\$132.3)	\$528.9	0.98	1.11	\$23,452.3	\$25,982.5	(\$2,530.2)
5.5 - Treat Waste	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0.00	0.00	\$13,085.8	\$13,085.8	\$0.0
<b>Total</b>	<b>\$900,834.3</b>	<b>\$894,199.9</b>	<b>\$831,940.8</b>	<b>(\$6,634.4)</b>	<b>\$62,259.3</b>	<b>0.99</b>	<b>1.07</b>	<b>\$2,101,977.7</b>	<b>\$2,033,686.8</b>	<b>\$68,290.9</b>

The CTD CV was a favorable \$62,259k – Key contributors to the CTD CV are in the areas of:

#### Base Operations, \$30,068k:

- 1) *Liquidations*, \$6,357k: due to the FY09 and FY10 rate liquidations being based on estimated incurred cost rates.
- 2) *SST Safe Storage & Operations*, \$5,177k: due to continuous labor and subcontractor under runs as work did not materialize as planned; partially offset with maintenance over runs.
- 3) *Facility and Property Management*, \$3,298k: due to FY09 savings resulting from unfilled positions and slow ramp up.



4) *Finance Support*, \$2,500k: due to Continuity of Service (COS) over liquidations in FY09; P-card volume credit; and material and labor under runs due to unfilled staff positions.

5) *RA- Remove Obsolete Equipment*, \$2,179k: due to less hours required to prepare the engineering documents to support the Demolish AN and AW Exhausters projects; use of lower cost engineering resources than planned to prepare the engineering documentation for the DST Obsolete Equipment Removal project; efficiency gained from experienced field support, and fewer field resources were needed to remove Area Radiation Monitor (ARM) in AP Farm, and compressors in AP and AW Farms; and the use of similar planning packages which lessened review time for the DST Obsolete Equipment Removal projects.

6) *RA- 222S Roof Replacement*, \$2,118k: due to the completion of the 222-S roof replacement with significantly less cost than planned due to better conditions, less material removal, use of efficient roof removal equipment, and less hazardous waste than planned.

7) *Information Resource Management*, \$2,085k: due to lower material expenditures as the result of receiving items from Yucca Mountain at a significant savings and Document Control's utilization of current staff.

8) *RA- Program Mgmt*, \$1,810k: due to rates for Request for Services (ROS) personnel and subcontractors being less than planned, material costs for proposal preparation and equipment costs being less than planned, and two (2) vacant positions not being filled.

9) *DST Integrity Project*, \$1,752k: due to the Corrosion Probe Surveillance contract being awarded for less than planned, and labor efficiencies were realized during AW-101 and AW-105 UT examination by performing examination back-to-back due to the availability of resources and the close proximity of the tanks; AW-104 UT support due to minimal wall cleaning required and no equipment failures; and AW-106 UT field preparations and scanning due to cleaning than expected conditions.

10) *SST Integrity Project*, \$1,526k: due to the utilization of subcontractor for development and evaluation criteria associated with SST grouping; less resources required to prepare the recommendations implementation plan; and utilizing interns for data analysis and collection; and less subcontractor cost for the Expert Panel support.

11) *RA - DST Valve Assembly Upgrades*, \$1,493k: due to efficiencies and reduced pricing negotiated with the supply chain on the firm fixed contract for the fabrication of the jumpers for the AP, AN-A, and AN-B Valve Pits, and condensed activities for the funnel replacements has resulted in savings on valve procurement and project support resources.

***In addition to the above variances, an unfavorable CV was experienced in the DST TSR/Basic maintenance account of (\$8,780k) resulting from Maintenance activities requiring more resources than planned due to higher equipment failure rates than anticipated.***

**WFD/Treatment Plng/DST Retrieval/Closure, CTD CV \$21,964k:**

- 1) *RA- WFE Technology Maturity Validation*, \$4,200k: due to decreased procurement costs for WFE Component (304L Stainless Steel versus baseline cost for Hastelloy).
  - a. Lease versus buy for subsystem equipment; accomplished tasks with fewer hours than planned.
  - b. Lower contract rates.
  - c. Process Hazard Analysis (PrHA) and Nuclear Safety activities were completed with direct labor instead of higher priced contract resources.
- 2) *WFD PE/Flow Sheet*, \$1,631k: due to lack of contract support and hiring delays until scope was defined.
- 3) *TDD- RMF/SCIX/FNSR Technology/Evaluations*, \$1,337:
  - a. The de-obligating of WRPS funds to direct fund both SNNL and Advanced Technologies and Laboratories (ATL)/222-S Lab in support of Fluidized Bed Steam Reforming (FBSR) sample analysis and product testing.
- 4) *RA- AW COB Isolation*, \$1,315k: due to efficiencies gained by awarding the competitive firm fixed-price contract to an experienced tank farm contractor, as well as the use of fewer resources than planned, which was the result of a strong, efficient working relationship between the Hanford Atomic Metal Trades Council (HAMTC), engineering, subcontractor, and construction craft.
- 5) *WFD Technical Baseline*, \$1,152k: due to the completion of technical tasks with fewer engineering hours than expected. Higher priority scope has also pulled resources away delaying the completion of some of the technical documents.
- 6) *RA- Secondary Waste Form Testing*, \$1,041k: due to efficiencies associated with Ceramcrete® and FBSR test plan development, lower costs for purchasing chemicals for testing, and labor efficiencies in laboratory testing of samples.
- 7) *IDF Glass testing*, \$578k: due to efficiencies associated with executing Glass Dissolution modeling by utilizing prior knowledge from similar activities;
  - a. Reduced scope by concentrating on select glass compositions; and efficiencies associated with initial set-up, calibration for testing, and economy of scale efficiencies from analyzing a large number of samples per day.
- 8) *Hanford IHLW Storage Project Management*, \$534k: labor efficiencies realized by using prior knowledge which limited the need for additional engineering support.
- 9) *RA- SN-278/SN-279 and SN-285/SN-286 TL Upgrades*, \$532k: resulting from material and vendor labor efficiencies realized during the fabrication of the wall penetrations and refurbished pipe for SL-278/279 and SN-285/286.
  - a. Lower subcontract cost from using less expensive direct engineering resources to complete the design of the SY Transfer Line upgrades. However, these efficiencies were offset by labor and subcontract inefficiencies during construction, initial excavation, and pit work.



- b. *Hanford IHLW Storage Project Support*, \$531k: due to the utilization of prior knowledge within current staff which eliminated the need for additional engineering support.

10) *Tank Waste Database Management*, \$522k: due to the use of fewer and lower cost resources to complete the Tank Waste Information Network System (TWINS) database diagnostic activities.

11) *Secondary Waste Treatment/ETF Project Mgmt*, \$520k: less resources charging than planned.

12) *RA-WFE-Specific Site & Regulatory Interfaces*, \$502k: due to the completion of the Specific Site Interfaces and Requirements report with current staff utilizing prior knowledge eliminating the need for engineering support.

- a. Lower rates for subcontractor work.
- b. Revised strategy for only a single identified interfacing system specification; less subcontract work was required on the Environmental Plan; and less labor than planned.

13) *RA- WFE Application Viability*, \$493k: due to efficiencies from completing the SST consolidation pilot-scale testing, test plans, and procedures in parallel; lower rates for subcontractor work; and less labor than planned.

14) *RPP System Plan*, \$492k: efficiencies gained through G2 training, Hanford Tank Waste Operations Simulator (HTWOS) model improvements, limited use of overtime, and enabling completion of HTWOS Modeling and System Plan Reporting in parallel.

15) *RA- AWA Project Planning and Mobilization*, \$415k: due to the lack of contract support and hiring delays until scope was established. Work scope is now complete.

#### **Retrieval and Closure SSTs, CTD CV \$9,699k:**

1) *Hose in Hose Transfer Line (HIHTL) Disposition (SST)*, \$4,220k: due to efficiencies realized in engineering and field by grouping multiple hoses together to work in parallel and several HIHTLs were less contaminated than anticipated; therefore, not requiring flushing or high radiation controls.

2) *C-Farm Infrastructure DST Receiver Tank 3*, \$2,338k: due to efficiencies realized from changing the designation of the receiver tank from AY-101 to AN-106.

- a. Current infrastructure setup to AN Farm avoids duplicating efforts to AY Farm which saves resources and reduces the amount of materials and equipment to purchase and install.

3) *C-110 Retrieval*, \$2,020k: due to efficiencies captured during C-110 waste retrieval operations because of the amount of slurry being greater than model predicted.

4) *Catch Tank & Pipeline Reporting*, \$1,773k: due to efficiencies gained by using direct labor rather than subcontract support.

**The CTD SV was an unfavorable (\$6,634k) – Key contributors to the CTD SV in the areas of:**

**Retrieval and Closure SSTs, (\$4,783k):**

- 1) *C-108 Retrieval, (\$1,588k)*: due to engineering and plant forces resources being directed to higher priorities delaying fabrication of key equipment. Additional modifications, repairs, and inspections are needed to existing equipment prior to installation of new equipment.
- 2) *C-104 Retrieval, (\$958k)*: due to an obstruction preventing completion of waste retrieval resulting in the use of the AMS to remove obstruction which has been installed, and the failure of the AN-101 superatnat pump, all of which is preventing retrieval operations.
- 2) *C-Farm Infrastructure DST Receiver Tank 3, (\$766k)*: is the result of a change in designation of DST#3 receiver tank from AY-101 to AN-106 in order to utilize existing infrastructure from C Farm in AN Farm.
- 3)
  - a. Full schedule recovery is expected in June 2011.
- 4) *Direct Push Characterization & Sampling, (\$514k)*: is due to delays in starting direct push field work at Site J in C Farm resulting from changes in types of pushes, changes in locations, and changes in work packages.
  - a. Additional variance is due to the delayed start of other direct push activities in C Farm in FY10.

In addition to the above variances, an unfavorable CV was experienced in the *C-104 Retrieval, (\$8,900k)*: due to:

- 1) Increased planning and preparatory work required for completion of 04-A jumper removal, pump removal/disposal, sluicer installation, and additional cost associated with the installation and modifications to the AMS.
2. In *C-111 Retrieval, (\$3,679k)*: due to restricted access to C Farm, idling construction crews due to vapor issues, additional overtime in preparation of the salt-well pump and screen removal, and additional resources required to work at removing hard crust waste from tank.

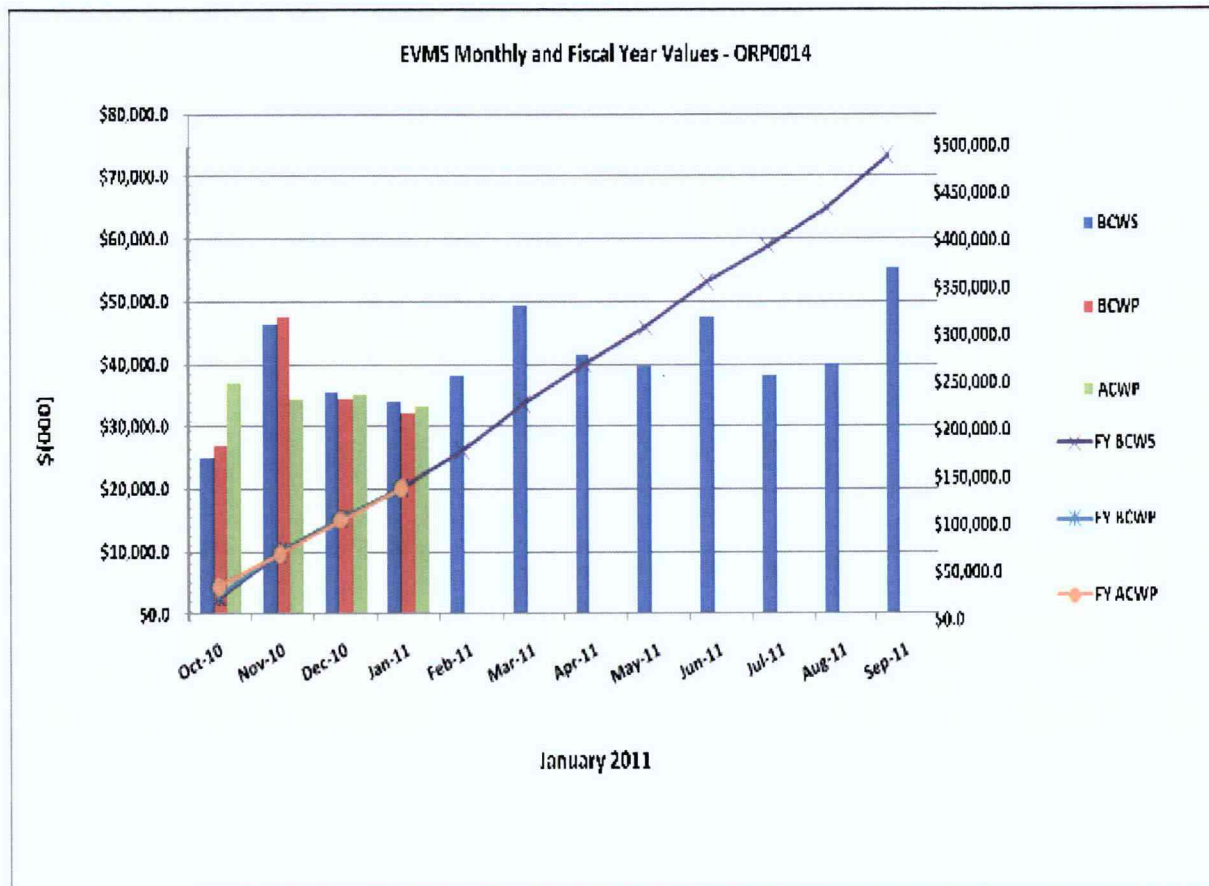


**CTD PROJECT PERFORMANCE by WBS**

<b>WRPS Project Performance - CTD (\$k)</b>								
<b>Work Breakdown Structure (WBS) Level 3</b>	<b>CTD BCWS</b>	<b>CTD BCWP</b>	<b>CTD ACWP</b>	<b>CTD SV</b>	<b>CTD CV</b>	<b>CTD SPI</b>	<b>CTD CPI</b>	<b>BAC</b>
5.1.1 - Base Operations	\$191,895.8	\$189,348.2	\$192,162.7	(\$2,547.7)	(\$2,814.5)	0.99	0.99	\$425,930.7
5.1.2 - DST Space Management	\$16,248.9	\$16,771.3	\$18,612.2	\$522.4	(\$1,840.9)	1.03	0.90	\$41,194.3
5.1.3 - TOC Facility Operations	\$70,757.4	\$70,090.9	\$66,658.0	(\$666.5)	\$3,432.9	0.99	1.05	\$149,286.1
5.1.4 - Tank Farm Upgrades	\$67,311.9	\$68,729.3	\$57,004.7	\$1,417.5	\$11,724.6	1.02	1.21	\$141,155.2
5.1.5 - Project Support	\$267,342.5	\$267,410.8	\$247,844.6	\$68.3	\$19,566.1	1.00	1.08	\$540,487.0
5.2.1 - Retrieval / Closure Program	\$82,589.5	\$81,772.4	\$71,627.5	(\$817.1)	\$10,144.9	0.99	1.14	\$164,725.4
5.2.2 - SST Retrieval East Area	\$88,118.7	\$84,661.2	\$87,291.1	(\$3,457.5)	(\$2,629.9)	0.96	0.97	\$217,907.8
5.2.3 - SST Retrieval West Area	\$2,409.0	\$1,784.5	\$1,249.2	(\$624.5)	\$535.3	0.74	1.43	\$3,872.1
5.2.4 - Closure Program	\$3,907.0	\$3,862.9	\$3,356.2	(\$44.1)	\$506.7	0.99	1.15	\$9,244.4
5.2.5 - SST Closure	\$2,169.9	\$2,330.5	\$1,189.1	\$160.6	\$1,141.4	1.07	1.96	\$24,486.9
5.3.1 - WTP Feed Delivery Program	\$37,667.4	\$37,155.8	\$31,016.8	(\$511.6)	\$6,139.0	0.99	1.20	\$86,978.1
5.3.2 - Construct DST Systems	\$10,505.1	\$10,242.4	\$9,603.1	(\$262.8)	\$639.3	0.97	1.07	\$99,628.3
5.3.3 - RA - Transfer System Mod Project	\$11,437.0	\$12,185.7	\$9,332.8	\$748.8	\$2,853.0	1.07	1.31	\$20,581.3
5.3.6 - Immobilization Program	\$7,267.1	\$7,283.1	\$5,337.0	\$16.0	\$1,946.2	1.00	1.36	\$32,335.2
5.3.7 - WTP Operational Readiness	\$6,994.4	\$6,989.4	\$6,047.5	(\$5.0)	\$941.9	1.00	1.16	\$16,111.0
5.3.8 - East Area Waste Receiving Facility (WRF)	\$490.8	\$490.8	\$190.5	\$0.0	\$300.3	1.00	2.58	\$490.8
5.3.9 - Tank Waste Pretreatment Project	\$5,337.4	\$5,168.1	\$3,307.8	(\$169.3)	\$1,860.4	0.97	1.56	\$6,644.2
5.3.10 - Secondary Waste Treatment/ETF	\$8,474.1	\$8,245.0	\$6,330.3	(\$229.1)	\$1,914.7	0.97	1.30	\$34,582.4
5.3.11 - Next Generation Projects	\$14,523.5	\$14,423.1	\$9,054.0	(\$100.5)	\$5,369.0	0.99	1.59	\$49,798.4
5.4.1 - Supplemental Treatment	\$5,387.0	\$5,254.7	\$4,725.8	(\$132.3)	\$528.9	0.98	1.11	\$23,452.3
5.5.2 Waste Treatment Facility (WTP)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	0.00	0.00	\$13,085.8
<b>Total</b>	<b>\$900,834.4</b>	<b>\$894,200.1</b>	<b>\$831,940.9</b>	<b>(\$6,634.4)</b>	<b>\$62,259.3</b>	<b>0.99</b>	<b>1.07</b>	<b>\$2,101,977.7</b>

### Office River Protection – Tank Farm – Fiscal Year To-Date Performance

Office of River Protection (ORP-0014) Fiscal Year 2011 - Monthly EVMS

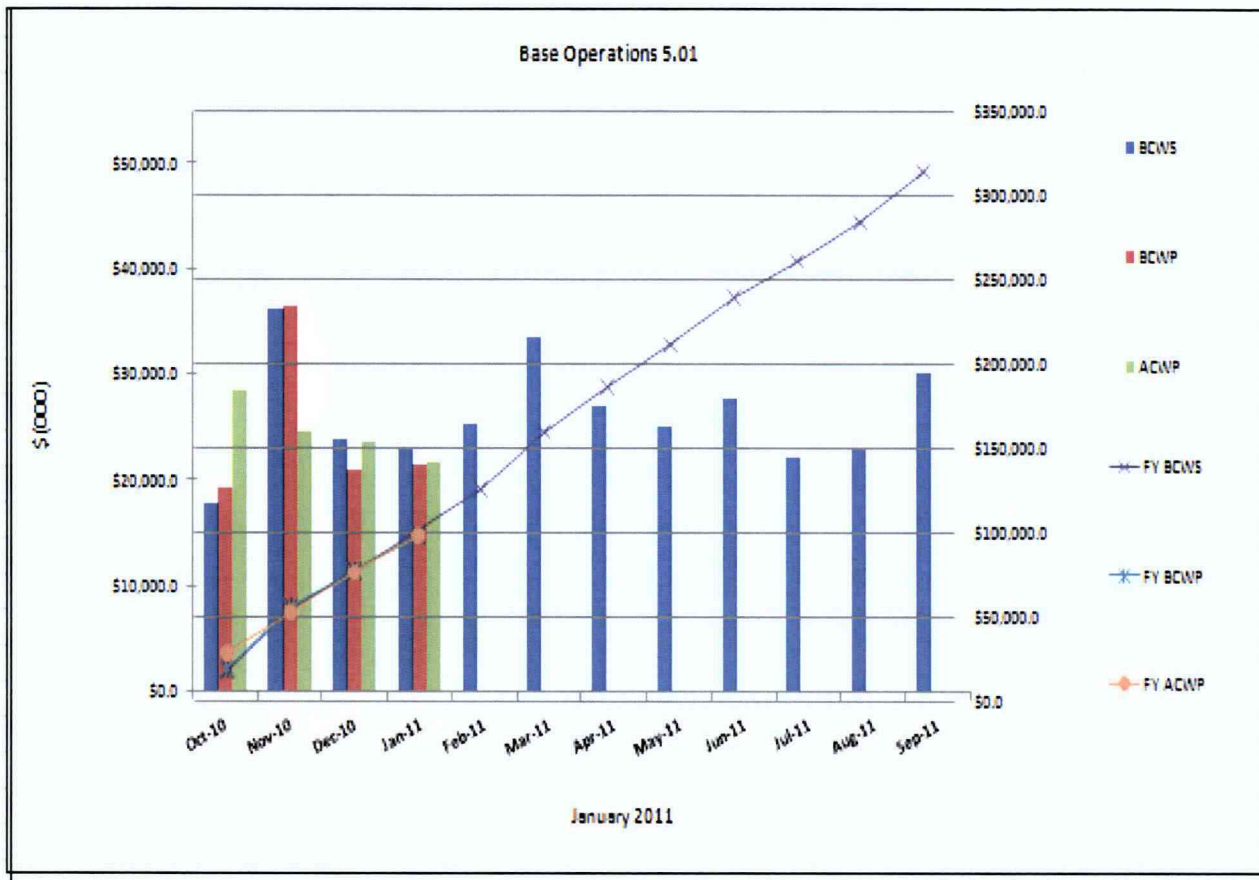


Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-10	\$24,918.8	\$26,782.0	\$37,083.6	1.07	0.72	\$24,918.8	\$26,782.0	\$37,083.6	1.07	0.72
Nov-10	\$46,528.0	\$47,510.9	\$34,301.0	1.02	1.39	\$74,446.8	\$74,292.9	\$71,384.6	1.04	1.04
Dec-10	\$35,469.5	\$34,558.3	\$35,056.5	0.97	0.99	\$106,916.3	\$108,851.1	\$106,441.0	1.02	1.02
Jan-11	\$33,862.5	\$32,115.2	\$33,376.8	0.95	0.96	\$140,778.8	\$140,966.3	\$139,817.8	1.00	1.01
Feb-11	\$38,205.9					\$178,984.7				
Mar-11	\$49,226.4					\$228,212.1				
Apr-11	\$41,597.9					\$269,809.0				
May-11	\$39,608.3					\$309,417.3				
Jun-11	\$47,399.0					\$356,816.3				
Jul-11	\$38,211.4					\$395,027.7				
Aug-11	\$39,949.9					\$434,977.6				
Sep-11	\$55,491.8					\$490,469.4				

CTD	\$900,834.5	\$894,100.0	\$831,940.8	0.99	1.07
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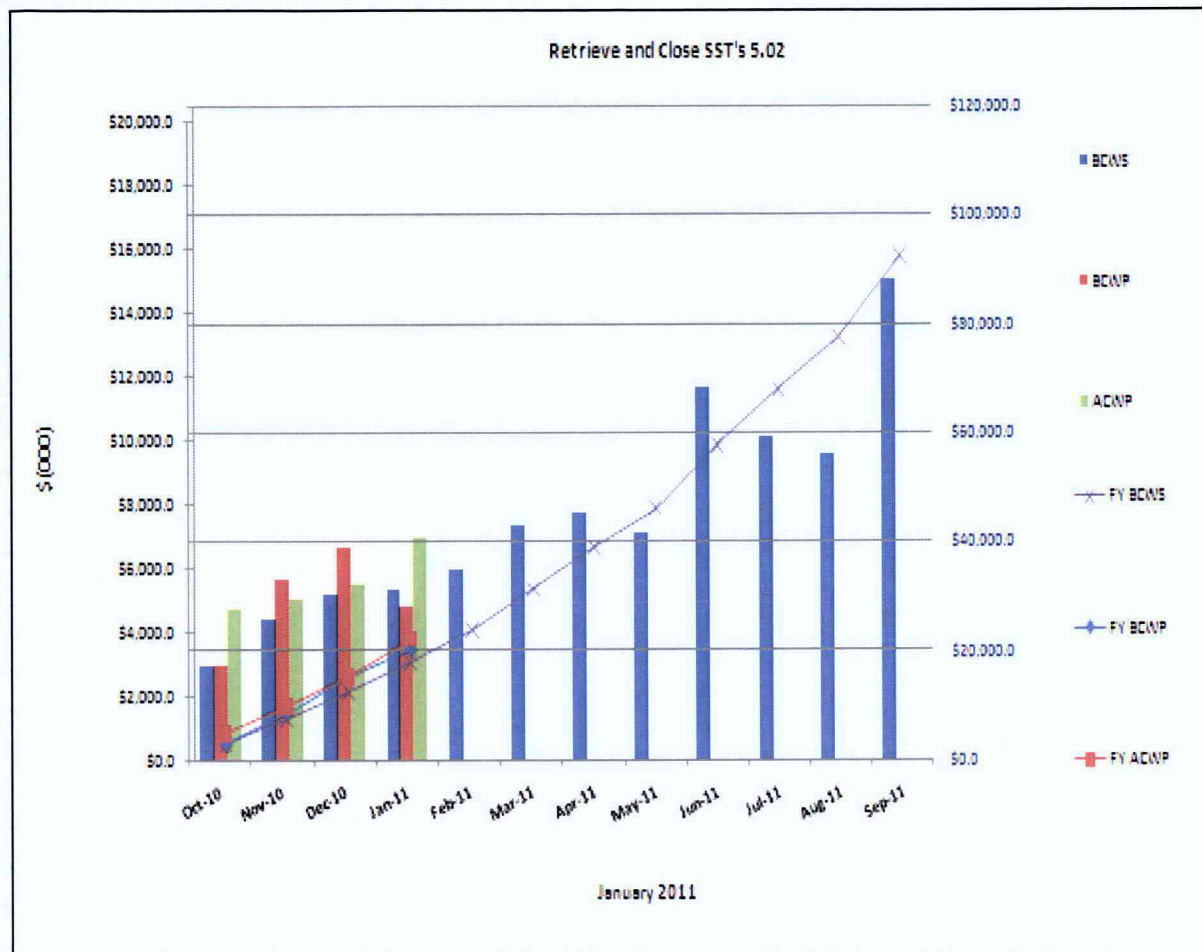


## Office of River Protection (ORP-0014) Fiscal Year 2011 - Monthly EVMS



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-10	\$17,777.2	\$19,285.1	\$28,549.6	1.08	0.68	\$17,777.2	\$19,285.1	\$28,549.6	1.08	0.68
Nov-10	\$36,143.1	\$36,366.3	\$24,452.2	1.01	1.49	\$53,920.3	\$55,651.4	\$53,001.8	1.03	1.05
Dec-10	\$23,775.6	\$20,995.7	\$23,488.8	0.88	0.89	\$77,695.9	\$76,647.1	\$76,490.6	0.99	1.00
Jan-11	\$22,876.6	\$21,370.0	\$21,705.1	0.93	0.98	\$100,572.5	\$98,017.1	\$98,195.7	0.97	1.00
Feb-11	\$25,286.0					\$125,858.5				
Mar-11	\$33,598.6					\$159,457.1				
Apr-11	\$26,943.0					\$186,400.1				
May-11	\$24,939.1					\$211,339.2				
Jun-11	\$27,677.6					\$239,016.8				
Jul-11	\$22,034.5					\$261,051.3				
Aug-11	\$22,915.8					\$283,967.1				
Sep-11	\$30,161.4					\$314,128.5				

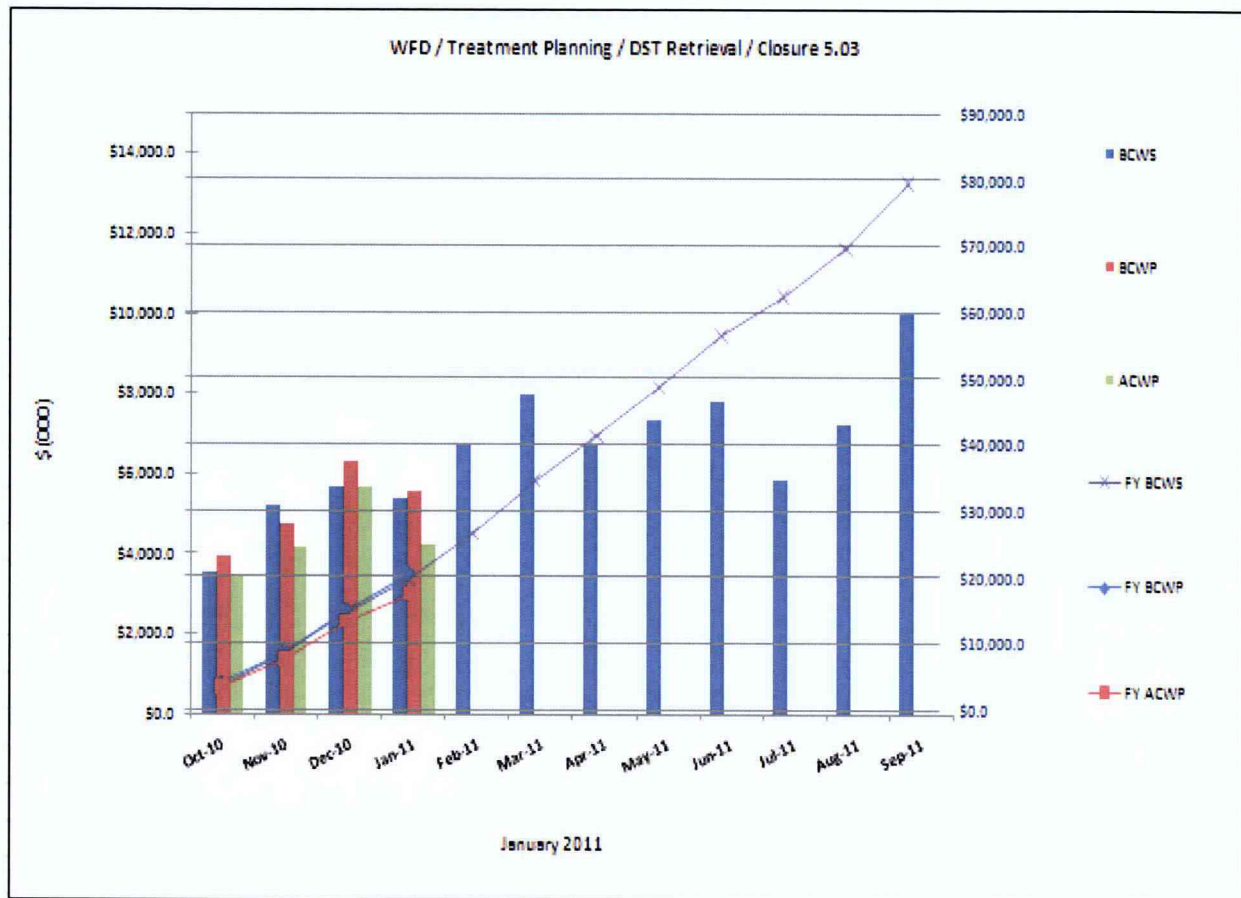
CTD	\$613,556.4	\$612,350.4	\$582,282.2	1.00	1.05
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Value	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct-10	\$2,991.6	\$2,932.6	\$4,707.6	0.98	0.62	\$2,991.6	\$2,932.6	\$4,707.6	0.98	0.62
Nov-10	\$4,412.7	\$5,622.7	\$5,006.7	1.27	1.12	\$7,404.3	\$8,555.3	\$9,714.3	1.16	0.88
Dec-10	\$5,209.7	\$6,682.7	\$5,494.0	1.28	1.22	\$12,614.0	\$15,238.0	\$15,208.3	1.21	1.00
Jan-11	\$5,310.0	\$4,820.2	\$6,975.6	0.91	0.69	\$17,924.0	\$20,058.2	\$22,183.9	1.12	0.90
Feb-11	\$5,945.4					\$23,869.4				
Mar-11	\$7,380.0					\$31,249.4				
Apr-11	\$7,707.4					\$38,956.8				
May-11	\$7,118.9					\$46,075.7				
Jun-11	\$11,634.4					\$57,710.1				
Jul-11	\$10,142.4					\$67,852.5				
Aug-11	\$9,598.5					\$77,451.0				
Sep-11	\$15,039.3					\$92,490.3				

CTD	\$179,194.0	\$174,411.4	\$164,713.1	0.97	1.06
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## Office of River Protection (ORP-0014) Fiscal Year 2011 - Monthly EYMS

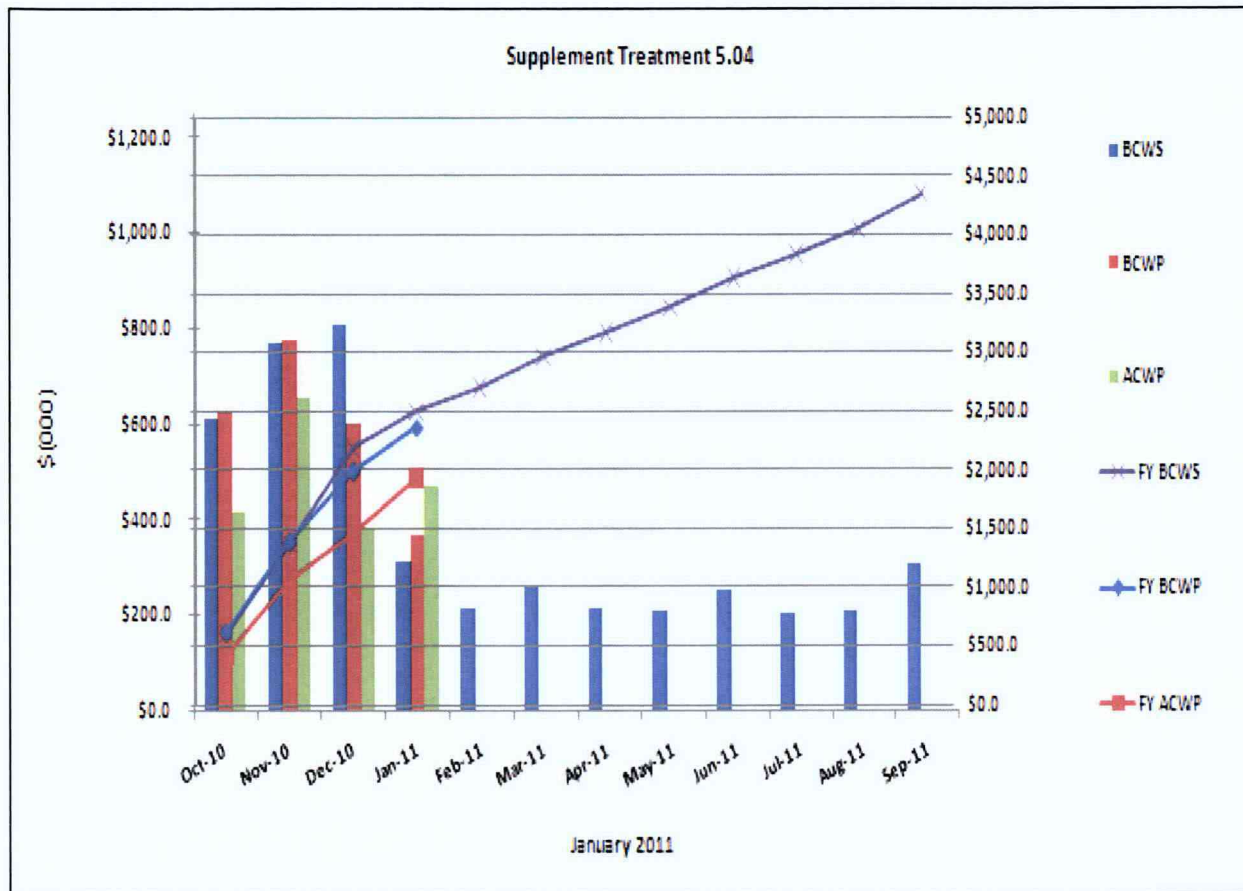


Earned Value Month	BCWS	BCVP	ACVP	SPI	CPI	FY BCWS	FY BCVP	FY ACVP	FY SPI	FY CPI
Oct-10	\$3,540.0	\$3,944.3	\$3,413.8	1.11	1.16	\$3,540.0	\$3,944.3	\$3,413.8	1.11	1.16
Nov-10	\$5,203.6	\$4,748.8	\$4,184.7	0.91	1.13	\$8,743.6	\$8,693.1	\$7,598.5	0.99	1.14
Dec-10	\$5,677.1	\$6,277.7	\$5,689.4	1.11	1.10	\$14,420.7	\$14,970.8	\$13,287.9	1.04	1.13
Jan-11	\$5,366.1	\$5,557.1	\$4,225.6	1.04	1.32	\$19,786.8	\$20,527.9	\$17,513.5	1.04	1.17
Feb-11	\$6,762.3					\$26,549.1				
Mar-11	\$7,991.8					\$34,540.9				
Apr-11	\$6,736.5					\$41,277.4				
May-11	\$7,339.8					\$48,617.2				
Jun-11	\$7,834.4					\$56,451.6				
Jul-11	\$5,834.5					\$62,286.1				
Aug-11	\$7,225.0					\$69,511.1				
Sep-11	\$9,985.9					\$79,497.0				

CTD	\$102,696.9	\$102,183.4	\$80,219.7	0.99	1.27
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## Office of River Protection (ORP-0014) Fiscal Year 2011 - Monthly EVMS



Earned Value	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Month										
Oct-10	\$610.0	\$619.9	\$412.6	1.02	1.50	\$610.0	\$619.9	\$412.6	1.02	1.50
Nov-10	\$768.6	\$773.1	\$657.3	1.01	1.18	\$1,378.6	\$1,393.0	\$1,069.9	1.01	1.30
Dec-10	\$807.0	\$602.2	\$384.2	0.75	1.57	\$2,185.6	\$1,995.2	\$1,454.1	0.91	1.37
Jan-11	\$309.8	\$368.0	\$470.6	1.19	0.78	\$2,495.4	\$2,363.2	\$1,924.7	0.95	1.23
Feb-11	\$212.2					\$2,707.6				
Mar-11	\$256.1					\$2,963.7				
Apr-11	\$211.1					\$3,174.8				
May-11	\$210.5					\$3,385.3				
Jun-11	\$252.6					\$3,637.9				
Jul-11	\$200.0					\$3,837.9				
Aug-11	\$210.5					\$4,048.4				
Sep-11	\$305.2					\$4,353.6				
CTD	\$5,387.0	\$5,254.7	\$4,725.8	0.98	1.11					

## **Complete Acquisition of New Facilities and Submit Part B Permit Applications**

**M-090-11, Complete the Negotiation of No More Than Two Canister Storage Facility Construction Interim Milestones, Due: 12/31/12, Status: On Schedule.** Negotiations are not yet underway.

**M-090-00, Acquire/modify facilities for storage of IHLW, Due: 12/31/2019, Status: On Schedule**

**M-047-06, Complete negotiation of no more than two interim milestones governing work necessary to support completion of M-045-00, Due: 06/30/12, Status: Negotiations are not yet underway.**

**M-047-00, Complete Work Necessary to provide facilities for management of secondary waste from the WTP, Due: 12/31/2022, Status: On Schedule**

**M-062-30, Complete negotiations establishing milestones for near term actions, Due: 10/25/11, Status: On schedule.** Negotiations are not yet underway.

**M-062-45ZZ, Negotiate a one-time supplemental treatment selection, Due: 4/30/2015, Status: On schedule.** Negotiations are not yet underway.

**M-062-45ZZ-A, Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones, Due: 4/30/2015, Status: On Schedule.**

**M-062-31-T01, Complete final design and submit RCRA Part B permit mod request, Due: 4/30/2016, Status: On schedule**

**M-062-32-T01, Start construction of supplemental vitrification treatment facility and/or WTP enhancements, Due: 4/30/2018, Status: On schedule**

**M-062-33-T01, Complete construction of supplemental vitrification treatment facility and/or WTP enhancements, Due: 4/30/2021, Status: On schedule**

**M-062-45XX, No later than 12/31/2021, the DOE and Ecology shall complete negotiations to establish a mechanism that will apply to resolve future disputes regarding the determinations in M-062-45, paragraphs 4 and 5, due: 12/31/2021, Status: On Schedule**

**M-062-34-T01, Complete hot commissioning of supplemental vitrification treatment facility and/or WTP enhancements, Due: 12/30/2022, Status: On schedule**

**M-062-21, Annually, submit data that demonstrates operation of the WTP, Due: 2/28/2023, Status: On Schedule**

**M-062-00, Complete Pretreatment Processing and Vitrification of HLW and LAW Tank Wastes, Due: 12/31/2047, Status: On Schedule**

**Significant Past Accomplishments:**

None

**Significant Planned Actions in the Next Six Months:**

Initiate negotiations under M-062-30.

**Issues:**

ORP received Letter 1100295 from Ecology on 1/13/11 stating Ecology has "...formed the opinion that USDOE actions jeopardize completion of HFFACO Milestone M-062-30."

## **Hanford Waste Treatment and Immobilization Plant (WTP) Project**

**M-062-20, Close all 28 issues in Comprehensive Review of the Hanford Waste Treatment Plant Flowsheet and Throughput Assessment, Due: 12/31/2010, Status: Completed (8/20/10).**

**M-062-01V, Submit Semi-Annual Project Compliance Report, Due: 1/31/2011, Status: Complete 1/27/2011 (11-TPD-008)**

**M-062-01W, Submit Semi-Annual Project Compliance Report, Due: 7/31/2011, Status: On Schedule**

**M-062-49, Submit a report to Ecology demonstrating that the WTP is designed to accomplish, pretreat 100% of retrievable waste, vitrify 100% of separated hi level waste, WTP LAW with Supplemental treatment can vitrify 100% of separated low level waste stream, Due: 10/31/2011, Status: On Schedule**

There are about 3,150 FTE equivalent contractor [Bechtel National Inc. (BNI)] and subcontractor personnel working on the WTP Project, including 1,050 craft, 510 non-manual, and about 267 subcontractor personnel FTE equivalents working at the WTP construction site (all facilities). Overall project percent complete through December 2010 is 57%, design and engineering is 81% complete, procurement is 59% complete and construction is 53% complete.

In December 2010, the facility percent complete values for Design/Engineering and Construction decreased. This decrease in values was tied to the incorporation of the remaining External Flowsheet Review Team (EFRT) Issues. This resulted in an increase in the facility engineering and construction budgets, which has correspondingly reduced the to-date percent complete values.

The overall WTP Project Schedule Variance (SV) in December was a positive \$7.3M, the Cost Variance (CV) was a negative (\$1.8M). The negative CV came from the Engineering, Plant Equipment and Construction Subcontract accounts. The positive SV came primarily from the Construction and Plant Equipment control accounts.

Following is the status through the end of December for current project issues:

### **Significant Past Accomplishments:**

Low Order Accumulation Model (LOAM) benchmarking tests associated with mixing for Non-Newtonian vessel configurations were completed in December. Analysis of the test results is ongoing and is expected to be completed by the end of February 2011.

A preliminary schedule has been developed for performing Large Scale Integrated Testing associated with vessel mixing. The four phase schedule includes:

- Increment 1 (confirmation of vessel scaling): August 2012
- Increment 2 (demonstration of integrated operations): December 2013
- Increment 3 (support for continuing operations): Date to be determined
- Increment 4 (integrated mixing test facility for WTP and Tank Farms): Date to be determined

The WTP Startup and Commissioning Integration Manager (Senior Executive Service) position was filled in December 2010.

**Significant Planned Actions in the Next Six Months:**

- There will be a mini Construction Project Review in March 2011
- A full Construction Project Review is scheduled for May 2011
- Complete fabrication of UFP-1A and UFP-1B vessels in the PT
- Complete installation of hot cell crane rails in the PT
- Begin installation of duct, pipe, and support steel in the Filter Cave in the HLW
- Receive Canister Decontamination Vessels in the HLW
- Receive LAW autosampling (ASX) equipment
- Begin installation of LAB autosampling (ASX) equipment
- Award Emergency Diesel Generator (EDG) procurement

**Issues:**

No significant issues at this time.



## Pretreatment (PT) Facility

### Significant Past Accomplishments:

The PT Facility will separate radioactive tank waste into High Level Waste (HLW) and Low-Activity Waste (LAW) fractions and transfer each waste type to the respective vitrification facility for immobilization. Overall facility percent complete is 45%, engineering is 78% complete, procurement is 42% complete, and construction is 33% complete.

All of the technical issues (M3, CXP, Evaporator, etc.) raised by the External Flowsheet review team (EFRT) have been resolved and incorporated in the Baseline in December 2010 through Baseline Change Proposal (BCP) 06-05085. This is a significant achievement to ensure all of the required activities are identified, resources allocated and schedule logic-tied. This increased the PT baseline by ~\$160M and corresponds to a decrease in the overall project completion by 3%. Other changes identified in the forecast update 4 have been incorporated in the baseline in January through BCP 06-05142.

Overall construction continues to perform well. Rebar and embed installation and fabrication of rebar wall curtains continues to support additional slab and wall placements at the 77-ft and 98-ft elevation. Construction completions for the month of January include: placement of 3 slabs at 77-ft elevation, a 5<sup>th</sup>-lift wall (77-ft to 98-ft elevation), and prefabrication of rebar curtains for three walls. A 5-ton construction crane and 102-ton shield door has been set into the hot cell. Fabrication and delivery of engineered pipe sections in the hot cell for Planning Area 21-2 has been completed. Erection started on the 4<sup>th</sup> tier structural steel on the northwest corner of the 77-ft elevation which is the final elevation to the roof. On-going work includes: installation of structural steel, fireproofing, drain and process piping, cable trays and supports, and HVAC ductwork.

Engineering is implementing the changes from the technical issue resolutions in the P&ID drawings and other documents. In addition, one hundred and ninety seven (197) electrical circuits were designed and one hundred and thirty one (131) electrical circuits were routed.

Procurement released two leak-detection boxes and three chilled water heat exchanger plates and frames to ship. Issued nine embed detail drawings, releasing 120 tons of 77-ft elevation gang sleeve embedments for fabrication.

### Significant Planned Actions in the Next Six Months:

- Complete analytical results from the Low Order Accumulation Model (LOAM) validation testing for the non-Newtonian vessel configuration
- Complete planning for the Large Scale testing for the validation of vessel mixing Scale-up
- Issue the revised P&ID's and Calculations for the Pretreatment Vessel Vent Process (PVP) system
- Complete the coupled dynamic analysis for the Waste Feed (FEP) and Treated Law (TLP) evaporators
- Complete fabrication of 2 major Jumper frames

- Complete placement of 5 slabs and 19 walls, totaling about ~2,800 CY
- Erection of 4<sup>th</sup> tier structural steel (77-ft to 98-ft elevation)
- Release 4 Solenoid Valve Utility Racks to Fabrication

**Issues:**

Design and fabrication of vessel HLP-22, is the critical path for PT. Re-analysis and design modifications necessary to mitigate increased stress levels of vessels due to seismic and other dynamic load increases continue. The engineering analysis/drawings for HLP-22 are scheduled to be complete by the end of March 2011. Efforts are also ongoing for the analysis of the on-site vessels in order to support the vessel alteration sequence. The permitting strategy for the first group of on-site vessels to be modified has been developed jointly with Ecology. Initial site work and pre-modification preparation work has begun. Schedules for the vessel modifications and permit needs have been provided to Ecology for their resource planning. The current plan is to award the first set of vessels for alteration by the end of April 2011. Permitting strategy for the off-site vessel modifications are under discussions with Ecology for finalizing.

The physical benchmark testing the LOAM for application to the 5 non-Newtonian vessels is complete. The results of the testing are still under evaluation to determine the validity of LOAM to the 5 non-Newtonian vessels.

## High-Level Waste (HLW) Facility

### Significant Past Accomplishments:

Progress on the build-out of the Filter Cave is continuing as planned. The 60-inch diameter C5V supply header was installed along the west wall in late January. This is the first major component to be installed in the Filter Cave and signals the start of the transition from the procurement phase to the commodity installation phase. The second similar header (for collecting the downstream exhaust of the C5V HEPA filters) will be installed in early February. After these two major components are aligned and welded into their final positions, the installation of duct, pipe, steel, and components throughout the Filter Cave will begin. Seismic qualification testing of the HEPA filter seals will be performed in February and witnessed by Contractor and DOE-WTP staff.

### Significant Planned Actions in the Next Six Months:

- Complete Civil, Structural, and Architectural Title II Design Contract Milestone
- Receive Initial Delivery of C5V HEPA Filter Housings
- Receive Canister Decontamination Vessels and Canister Rinse Vessel
- Set Shielded Personnel Access Door RWH-DOOR-20 in the Waste Drum Swabbing and Monitoring Area
- Complete Fabrication of C5V Dampers
- Commence Siding and Roofing of Annex

### Issues:

Delays in deliveries from the commodity vendors have resulted in increased coordination efforts, schedule re-sequencing and order prioritizations in order to avoid impacting Construction. The Contractor is working to identify process improvements and enhance the interfacing in order to reduce potential future schedule delays.

The fabrication and delivery of HLW vessels is also being monitored closely. Vessel status and progress is reported weekly to ensure completion and delivery prior to the scheduled installation dates.

## Low-Activity Waste (LAW) Facility

### Significant Past Accomplishments:

The LAW Facility will vitrify low-activity waste from the PT Facility. Waste will be mixed with glass formers, vitrified into glass at an average daily rate of 30 metric tons, and placed in stainless-steel containers that will be disposed on site in the Integrated Disposal Facility. Overall facility percent complete is 64%, engineering is 90%, procurement is 80%, and construction is 64%.

In December 2010, the facility percent complete values for Design/Engineering and Construction decreased. This decrease in values was tied to the incorporation of the remaining External Flowsheet Review Team (EFRT) Issues. This resulted in an increase in the facility engineering and construction budgets, which has correspondingly reduced the to-date percent complete values.

- Engineering

BNI Engineering issued piping and instrumentation diagrams (P&IDs) for the LAW chilled water (CHW) system, and a committed calculation, *LAW HVAC C2 Equipment Sizing Calculation*. Controls and instrumentation (C&I) data sheets were issued for LAW radiological monitoring instruments, safety process gauges, important-to-safety (ITS) pressure transmitters, and ITS solenoid valves. Engineering also issued control logic diagrams for the LAW C2V and C5V ventilation systems, steam condensate water (SCW) system, high-pressure steam (HPS) system, low-pressure steam (LPS) system, and the plant cooling water (PCW) system, all to support control software development. Controls and instrumentation (C&I) software was developed for the LAW C2V and C5V ventilation systems, the plant cooling water (PCW) system, and the high-pressure steam (HPS) system.

- Procurement

Procurement activities for the LAW facility included the issuance of material requisitions for the cooling jackets for the LAW melter feed process (LFP) system vessels, pressure relief valves, and instrument racks.

- Construction

During January, BNI completed the electrical "authority having jurisdiction" (AHJ) inspection of several doors within the LAW facility, as well as installation of the cooling panels in pour caves 1 and 2, grating in B-cell, and electrical gutter and call buttons at each LAW floor elevation. Construction activities initiated in January included Thermite welding of rails in the south LAW finishing line and installation of two pumps in the primary off-gas process (LOP) system. BNI continued installation the fire alarm system and medium voltage electrical buss ductwork. Other normal activities continued, including installation of piping and hangers, cable tray, conduit and wiring, instrument enclosures, lighting fixtures, partition wall framing and gypsum wallboard, and perimeter sealants.

- Commissioning

Controls and instrumentation (C&I) software was tested for several LAW systems, including the C5V and C2V ventilation, high-pressure steam, and plant cooling water systems. The preparation of a LAW spare parts list, including melter consumables and feed pump components continued.

**Significant Planned Actions in the Next Six Months:**

- Complete installation of LAW personnel elevator

**Issues:**

No major issues.

## Analytical Laboratory

### Significant Past Accomplishments:

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. Overall facility complete for LAB is 45%, engineering is 81%, procurement is 73%, and construction is 69%.

In December 2010, the facility percent complete values for Design/Engineering and Construction decreased. This decrease in values was tied to the incorporation of the remaining External Flowsheet Review Team (EFRT) Issues. This resulted in an increase in the facility engineering and construction budgets, which has correspondingly reduced the to-date percent complete values.

- Engineering

In January, BNI engineering issued control logic diagrams for the stack discharge monitoring (SDJ) system to support software development. A controls and instrumentation (C&I) data sheet was issued for "Q" boundary foundation fieldbus pressure transmitters. In addition, controls and instrumentation (C&I) software was developed for the stack discharge monitoring (SDJ) and C2V ventilation systems.

- Procurement

A material requisition was issued for the purchase of instrument racks.

- Construction

In January, BNI continued installation of the piping in the C2 and C3 drainage pits, electrical raceway and conduit, as well as piping and hangers for the LAB high pressure steam, low pressure steam, and steam condensate systems.

- Commissioning

Controls and instrumentation (C&I) software testing was performed for the LAB C2V ventilation, stack discharge monitoring (SDJ), low voltage electrical (LVE), medium voltage electrical (MVE), and uninterruptible power electrical (UVE) systems.

### Significant Planned Actions in the Next Six Months:

- Install LAB waste drum bogie shield door
- Complete LAB C5 ventilation filter room ceiling design

### Issues:

No major issues.

## Balance of Facilities (BOF)

### Significant Past Accomplishments:

BOF provides services and utilities to support operation of the main production facilities – PT, HLW, LAW, and LAB. Overall facility percent complete for BOF is 46%, engineering is 85%, procurement is 44%, and construction is 60%.

In December 2010, the facility percent complete values for Design/Engineering and Construction decreased. This decrease in values was tied to the incorporation of the remaining External Flowsheet Review Team (EFRT) Issues. This resulted in an increase in the facility engineering and construction budgets, which has correspondingly reduced the to-date percent complete values.

- Engineering

BNI Engineering issued a system description for the glass former reagent (GFR) system, a control logic diagram for the uninterruptible power electrical (UPE) system, and several controls and instrumentation (C&I) data sheets for pressure/differential pressure/temperature transmitters.

- Procurement

The major focus has been on procurement of the Emergency Diesel Generators (EDGs). A new price quote from the vendor is expected in February. The CO<sub>2</sub> vessel delivery is now expected in February due to weather associated delays. Material requisitions were issued to purchase safety pressure relief valves and instrument racks.

- Construction

BNI construction completed the installation of BOF chilled water system booster pumps in support of the LAW facility. Multiple construction activities continued at the chiller compressor plant (CCP), the glass former storage facility (GFSF), and the water treatment facility. The fire alarm detection system installation continued at the T-52 Warehouse.

- Commissioning

Work continued on the development of a decontamination guide.

### Significant Planned Actions in the Next Six Months:

- Award EDG procurement
- Complete concrete placements for BOF Ammonia Facility
- Receive BOF ammonia vaporizer skid
- Complete water treatment facility

### Issues:

No major issues.

Waste Treatment Plant Project - Percent Complete Status Through December 2010												
(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars		
Facilities	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
	924.8	591.5	64%	219.4	197.3	90%	233.3	187.5	80%	315.8	200.7	64%
	343.2	155.5	45%	51.5	41.5	81%	56.9	41.3	73%	88.7	61.4	69%
	523.6	238.6	46%	69.4	58.7	85%	83.9	37.1	44%	226.6	134.8	60%
	1,417.5	731.1	52%	328.1	283.1	86%	440.1	273.7	62%	523.4	170.2	33%
	2,446.7	1,106.3	47%	653.9	510.0	78%	708.0	297.2	42%	893.3	293.9	33%
Shared Services	4,768.9	3,089.9	65%	1,081.0	855.7	79%	470.2	330.7	70%	1,405.7	977.8	70%
Total WTP w/o UB	10,424.7	5,912.8	57%	2,403.3	1,946.3	81%	1,992.4	1,167.5	59%	3,453.5	1,838.7	53%
Undistributed Budget	65.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total WTP	10,490.4	5,912.8	56%	2,403.3	1,946.3	81%	1,992.4	1,167.5	59%	3,453.5	1,838.7	53%

Source: WTP Contract Performance Report

Note: In December 2010, the facility percent complete values for Design/Engineering and Construction decreased. This decrease in values was tied to the incorporation of the remaining External Flowsheet Review Team (EFRT) issues. This resulted in an increase in the facility engineering and construction budgets, which has correspondingly reduced the to-date percent complete values.



Office of River Protection  
Consent Decree 08-5085-FVS

Project Summary Report

February 17, 2011

## Office of River Protection

Consent Decree 08-5085-FVS

## Project Summary Report

February 17, 2011

8:30 a.m. – 11:00 a.m.

Page	Topic	Leads
1	Statistics / Status	Woody Russell / Dan McDonald / Jeff Lyon
5	SST Retrieval and Closure - D-00B-01, -02, -03, -04 - TWRWP Status	Chris Kemp / Jeff Lyon
8	WTP - Immobilization Plant Project - D-00A-06, D-00A-17, D-00A-01	Wahed Abdul / Jeff Trent / Gary Olsen / Dan McDonald
10	WTP Pretreatment (PT) Facility - D-00A-18, -19, -13, -14, -15, 16	Wahed Abdul / Dan McDonald
14	High-Level Waste (HLW) Facility - D-00A-20, -21, 02, 03	Jeff Trent / Dan McDonald
17	Low-Activity Waste (LAW) Facility - D-00A-07, -08, -09	Gary Olsen / Dan McDonald
20	Analytical Laboratory (LAB) - D-00A-005	
22	Balance of Facilities (BOF) - D-00A-12	

Fiscal Year 2010 Consent Decree Milestone Status													
Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
D-00A-18	Complete Structural Steel Erection below Elevation 56' in PT Facility	12/31/09	07/29/09										
D-001-00R-42	Quarterly Report	10/31/09	10/28/09										
D-001-00R-43	Quarterly Report	01/31/10	01/28/10										
D-001-00R-44	Quarterly Report	04/30/10	04/30/10										
D-001-00R-45	Quarterly Report	07/31/10	07/29/10										
*D-00C-01A	Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6 Month Period	07/31/10	07/26/10										
* - Submittal pursuant to D-00C-01 series satisfies M-062-01 series reporting.													

Fiscal Year 2011 Consent Decree Milestone Status													
Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
D-00C-02A	Submit to Ecology and Oregon Monthly Summary Reports	11/30/10	11/18/10										
D-00A-20	Complete Construction of Structural Steel to Elevation 14' in HLW Facility	12/31/10	01/13/10										
D-00C-02B	Submit to Ecology and Oregon Monthly Summary Reports	12/31/10	12/29/10										
D-00C-02C	Submit to Ecology and Oregon Monthly Summary Reports	01/31/11	01/25/11										
D-00C-01B	Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6 Month Period	01/31/11	01/25/11										
D-00C-02D	Submit to Ecology and Oregon Monthly Summary Reports	02/28/11		X									
**D-00C-02E	Submit to Ecology and Oregon Monthly Summary Reports	03/31/11		X									
** Future Monthly Reports will be added as necessary to maintain a two-months ahead activity.													

Fiscal Year 2011 Consent Decree Milestone Status													
Milestone No.	Description	Due Date	Date Completed	On Schedule	At Risk	Recoverable	To Be Missed	Missed	In Litigation	Deleted	In Program Planning	In Abeyance	Dispute Resolution
D-00C-01C	Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6 Month Period	07/31/11		X									



## Reports

**D-00C-02 series, Submit to Ecology & State of Oregon Monthly Summary Report Documenting Progress During Previous Month, Due: End of Each Month, Status: On Schedule**

**D-00C-01A, Submit to Ecology and Oregon Semi-Annual Report Documenting Progress During Previous 6-Month Period, Due: 1/31/2011, Status: On Schedule**

**D-006-00-A1, Provide State of Oregon notice of meetings in D-006-00-A, etc. no less than 30 days before they are scheduled, Due: 9/25/2013, Status: On Schedule**

**D-006-00-A, Meet Approximately Every Three Years After Entry of Decree to review requirements of the Consent Decree, Due: 10/25/2013, Status: On Schedule**

## **SST Retrieval and Closure Program**

**D-00B-01, Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C, Due:** 9/30/2014, Status: On Schedule

**D-00B-01A thru J, Submit Tank Retrieval Complete Certification, Due:** TBD

Pursuant to the requirement at IV(B)(5) of the Consent Decree (CD) DOE must submit to Ecology a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix "C", Part 1, of the CD. Tanks currently in retrieval status are C-108, C-109, C-110, C-104, and C-111.

**D-00B-02, Advise Ecology of the 9 SST's from which Waste Will Be Retrieved by 2022, Due:** 9/30/2014, Status: On Schedule. ORP and Ecology began meeting on December 13, 2010, to discuss the selection of the next nine tanks to be retrieved and why ORP believes those nine tanks should be in A/AX Farms. The last meeting was held January 18, 2011. The next meeting is scheduled for February 3, 2011, to discuss 242-A Evaporator.

**D-00B-03, Initiate Startup Retrieval in At Least 5 of 9 SSTs in D-00B-02, Due:** 12/31/2017, Status: On Schedule

**D-00B-04, Complete Retrieval of Tank Wastes from the 9 SSTs in D-00B-02, Due:** 9/30/2022, Status: On Schedule

**D-00B-04A thru I, Submit Tank Retrieval Complete Certification, Due:** TBD

### **Significant Past Accomplishments:**

- Completed installation of concrete pad around the C-107 new large riser.
- Initiated Site Preparations for C-107 electrical upgrades and control trailer installation.
- Continued testing of a MARS sluice educator system at Columbia Energy in Pasco and continued testing of the MARS sluicing system at Columbia Test Center (CTC) in Richland.
- Continued design activities for C-112 sluicing system.
- Initiated design activities for C-101 sluicing system.
- Continued construction activities for C-108 equipment installation for Hard Heel Removal.

### **Significant Planned Activities in the Next Six Months:**

- Obtain C-109 heel samples.
- Complete testing of the MARS arm.
- Complete construction/installation of MARs with a sluicing end-effector for C-107 retrieval.
- Initiate construction of C-108 hard heel retrieval system, and start up of retrieval activities.
- Complete C-112 design, initiate long lead procurements and initiate legacy equipment removals.

- Operate hydraulic arm Articulating Mast System (AMS) into C-104 to aid removal of obstruction underneath slurry pump and resume and complete C-104 retrieval.
- Finish testing of the MARS with the vacuum educator.

**Issues:**

C-106 Closure Plan approval and SST radiological Categorical Notice of Construction (NOC) Phase 3 (closure) and a toxics categorical NOC application are pending completion of the Tank Closure and Waste Management Environmental Impact Statement (EIS) and associated Record of Decision (ROD); forecast completion for the final EIS ROD is in the Winter of 2011.



## TWRWP Status

Tank	TWRWP	Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520	MRS (per 10/7/10 agreement, to be Modified Sluicing)	-	-
C-102	RPP-22393	Modified Sluicing	MS-ITV	-
C-103	RPP-21895	Retrieval Completed		
C-104	RPP-22393	Modified Sluicing	MS-ITV	-
C-105	RPP-22520	MRS	-	-
C-106		Retrieval Completed		
C-107	RPP-22393	MARS-S		
C-108	RPP-22393	Modified Sluicing	Chemical Dissolution	MS-ITV
C-109	RPP-21895	Modified Sluicing	MS-ITV	-
C-110	RPP-33116	Modified Sluicing	-	-
C-111	RPP-37739	Modified Sluicing	-	-
C-112	RPP-22393	Modified Sluicing	MS-ITV	-

### Issues:

- ORP requested a schedule for any future TWRWP changes.
- DOE wants to issue a revised Tank Retrieval Technology Roadmap Document and ORP want to resolve 2<sup>nd</sup> and 3<sup>rd</sup> technology discussion.
- ORP wants to reopen discussion on end of retrieval discussions that include cost benefit analysis and how the finish of a retrieval decision occurs.

## **Hanford Waste Treatment and Immobilization Plant (WTP) Project**

**D-00A-06, Complete Methods Validations**, Due: 12/31/2017, Status: On Schedule

**D-00A-17, Hot Start of Waste Treatment Plant**, Due: 12/31/2019, Status: On Schedule

**D-00A-01, Achieve Initial Plant Operations for WTP**, Due: 12/31/2022, Status: On Schedule

There are about 3,150 FTE equivalent contractor [Bechtel National Inc. (BNI)] and subcontractor personnel working on the WTP Project, including 1,050 craft, 510 non-manual, and about 267 subcontractor personnel FTE equivalents working at the WTP construction site (all facilities). Overall project percent complete through December 2010 is 57%, design and engineering is 81% complete, procurement is 59% complete and construction is 53% complete.

In December 2010, the facility percent complete values for Design/Engineering and Construction decreased. This decrease in values was tied to the incorporation of the remaining External Flowsheet Review Team (EFRT) Issues. This resulted in an increase in the facility engineering and construction budgets, which has correspondingly reduced the to-date percent complete values.

The overall WTP Project Schedule Variance (SV) in December was a positive \$7.3M, the Cost Variance (CV) was a negative (\$1.8M). The negative CV came from the Engineering, Plant Equipment and Construction Subcontract accounts. The positive SV came primarily from the Construction and Plant Equipment control accounts.

Following is the status through the end of December for current project issues:

### **Significant Past Accomplishments:**

Low Order Accumulation Model (LOAM) benchmarking tests associated with mixing for Non-Newtonian vessel configurations were completed in December. Analysis of the test results is ongoing and is expected to be completed by the end of February 2011.

A preliminary schedule has been developed for performing Large Scale Integrated Testing associated with vessel mixing. The four phase schedule includes:

- Increment 1 (confirmation of vessel scaling): August 2012
- Increment 2 (demonstration of integrated operations): December 2013
- Increment 3 (support for continuing operations): Date to be determined
- Increment 4 (integrated mixing test facility for WTP and Tank Farms): Date to be determined

The WTP Startup and Commissioning Integration Manager (Senior Executive Service) position was filled in December 2010.

**Significant Planned Actions in the Next Six Months:**

- There will be a mini Construction Project Review in March 2011
- A full Construction Project Review is scheduled for May 2011
- Complete fabrication of UFP-1A and UFP-1B vessels in the PT
- Complete installation of hot cell crane rails in the PT
- Begin installation of duct, pipe, and support steel in the Filter Cave in the HLW
- Receive Canister Decontamination Vessels in the HLW
- Receive LAW autosampling (ASX) equipment
- Begin installation of LAB autosampling (ASX) equipment
- Award Emergency Diesel Generator (EDG) procurement

**Issues:**

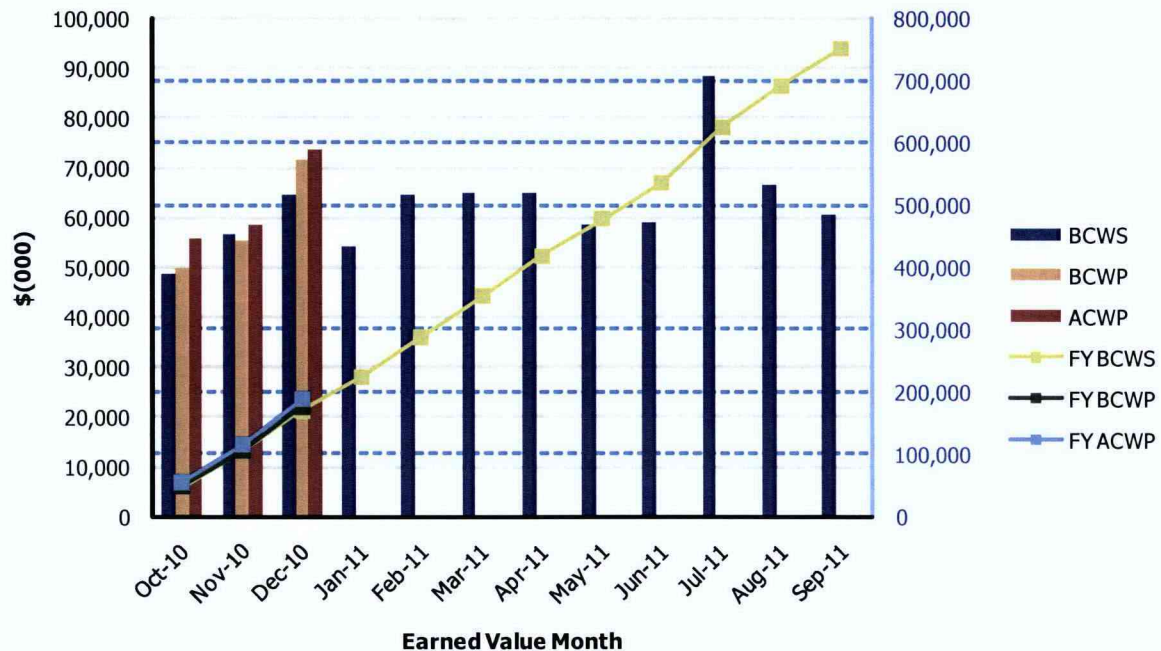
No significant issues at this time.



## WTP – Fiscal Year To-Date Performance

**River Protection****01-D-416 - Waste Treatment Plant (WTP) Project**

## Monthly EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	\$48,550	\$49,962	\$55,880	1.03	0.89	\$48,550	\$49,962	\$55,880	1.03	0.89
Nov 2010	\$56,608	\$55,427	\$58,449	0.98	0.95	\$105,158	\$105,389	\$114,329	1.00	0.92
Dec 2010	\$64,486	\$71,840	\$73,610	1.11	0.98	\$169,644	\$177,229	\$187,939	1.04	0.94
Jan 2011	\$54,259					\$223,903				
Feb 2011	\$64,495					\$288,399				
Mar 2011	\$64,996					\$353,395				
Apr 2011	\$64,783					\$418,178				
May 2011	\$58,696					\$476,874				
Jun 2011	\$59,092					\$535,966				
Jul 2011	\$88,480					\$624,446				
Aug 2011	\$66,582					\$691,027				
Sep 2011	\$60,343					\$751,371				
PTD	\$5,897,040	\$5,912,789	\$5,945,968	1.00	0.99					

Note: December Data is preliminary and may possibly change.

## **Pretreatment (PT) Facility**

**D-00A-19, Complete Elevation 98' Concrete Floor Slab in PT Facility, Due: 12/31/2014,**  
Status: On Schedule

**D-00A-13, Complete Installation of Pretreatment Feed Separation Vessels, Due:**  
12/31/2015, Status: On Schedule

**D-00A-14, PT Facility Construction Substantially Complete, Due: 12/31/2017,**  
Status: On Schedule

**D-00A-15, Start PT Facility Cold Commissioning, Due: 12/31/2018,**  
Status: On Schedule

**D-00A-16, PT Facility Hot Commissioning Complete, Due: 12/31/2019,**  
Status: On Schedule

### **Significant Past Accomplishments:**

The PT Facility will separate radioactive tank waste into High Level Waste (HLW) and Low-Activity Waste (LAW) fractions and transfer each waste type to the respective vitrification facility for immobilization. Overall facility percent complete is 45%, engineering is 78% complete, procurement is 42% complete, and construction is 33% complete.

All of the technical issues (M3, CXP, Evaporator, etc.) raised by the External Flowsheet review team (EFRT) have been resolved and incorporated in the Baseline in December 2010 through Baseline Change Proposal (BCP) 06-05085. This is a significant achievement to ensure all of the required activities are identified, resources allocated and schedule logic-tied. This increased the PT baseline by ~\$160M and corresponds to a decrease in the overall project completion by 3%. Other changes identified in the forecast update 4 have been incorporated in the baseline in January through BCP 06-05142.

Overall construction continues to perform well. Rebar and embed installation and fabrication of rebar wall curtains continues to support additional slab and wall placements at the 77-ft and 98-ft elevation. Construction completions for the month of January include: placement of 3 slabs at 77-ft elevation, a 5<sup>th</sup>-lift wall (77-ft to 98-ft elevation), and prefabrication of rebar curtains for three walls. A 5-ton construction crane and 102-ton shield door has been set into the hot cell. Fabrication and delivery of engineered pipe sections in the hot cell for Planning Area 21-2 has been completed. Erection started on the 4<sup>th</sup> tier structural steel on the northwest corner of the 77-ft elevation which is the final elevation to the roof. On-going work includes: installation of structural steel, fireproofing, drain and process piping, cable trays and supports, and HVAC ductwork.

Engineering is implementing the changes from the technical issue resolutions in the P&ID drawings and other documents. In addition, one hundred and ninety seven (197) electrical circuits were designed and one hundred and thirty one (131) electrical circuits were routed.



Procurement released two leak-detection boxes and three chilled water heat exchanger plates and frames to ship. Issued nine embed detail drawings, releasing 120 tons of 77-ft elevation gang sleeve embedments for fabrication.

**Significant Planned Actions in the Next Six Months:**

- Complete analytical results from the Low Order Accumulation Model (LOAM) validation testing for the non-Newtonian vessel configuration
- Complete planning for the Large Scale testing for the validation of vessel mixing Scale-up
- Issue the revised P&ID's and Calculations for the Pretreatment Vessel Vent Process (PVP) system
- Complete the coupled dynamic analysis for the Waste Feed (FEP) and Treated Law (TLP) evaporators
- Complete fabrication of 2 major Jumper frames
- Complete placement of 5 slabs and 19 walls, totaling about ~2,800 CY
- Erection of 4<sup>th</sup> tier structural steel (77-ft to 98-ft elevation)
- Release 4 Solenoid Valve Utility Racks to Fabrication

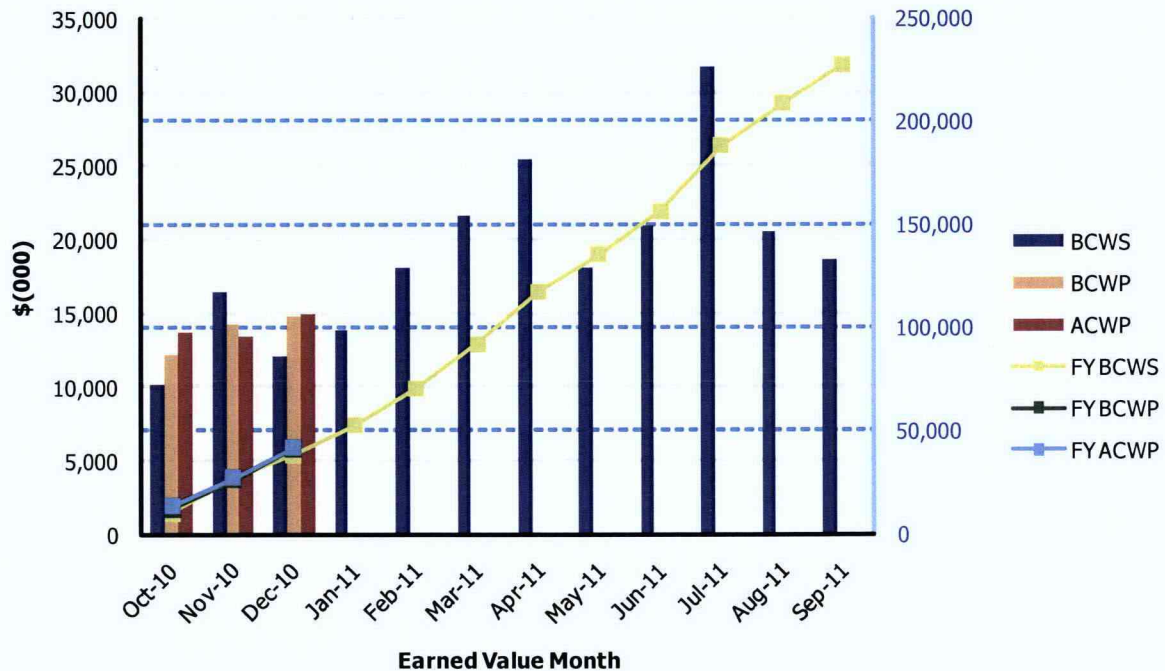
**Issues:**

Design and fabrication of vessel HLP-22, is the critical path for PT. Re-analysis and design modifications necessary to mitigate increased stress levels of vessels due to seismic and other dynamic load increases continue. The engineering analysis/drawings for HLP-22 are scheduled to be complete by the end of March 2011. Efforts are also ongoing for the analysis of the on-site vessels in order to support the vessel alteration sequence. The permitting strategy for the first group of on-site vessels to be modified has been developed jointly with Ecology. Initial site work and pre-modification preparation work has begun. Schedules for the vessel modifications and permit needs have been provided to Ecology for their resource planning. The current plan is to award the first set of vessels for alteration by the end of April 2011. Permitting strategy for the off-site vessel modifications are under discussions with Ecology for finalizing.

The physical benchmark testing the LOAM for application to the 5 non-Newtonian vessels is complete. The results of the testing are still under evaluation to determine the validity of LOAM to the 5 non-Newtonian vessels.

**River Protection**  
**01-D-16E - Pretreatment Facility**

Facility Specific (unallocated) Monthly and Fiscal-Year-to-Date (FY-TD) EVMS Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	\$10,196	\$12,179	\$13,730	1.19	0.89	\$10,196	\$12,179	\$13,730	1.19	0.89
Nov 2010	\$16,462	\$14,257	\$13,360	0.87	1.07	\$26,658	\$26,436	\$27,090	0.99	0.98
Dec 2010	\$12,060	\$14,788	\$14,869	1.23	0.99	\$38,718	\$41,224	\$41,959	1.06	0.98
Jan 2011	\$13,871					\$52,589				
Feb 2011	\$18,023					\$70,612				
Mar 2011	\$21,614					\$92,226				
Apr 2011	\$25,435					\$117,661				
May 2011	\$17,988					\$135,648				
Jun 2011	\$20,895					\$156,544				
Jul 2011	\$31,672					\$188,215				
Aug 2011	\$20,486					\$208,701				
Sep 2011	\$18,585					\$227,286				
PTD	\$1,094,621	\$1,106,263	\$1,075,440	1.01	1.03					

Note: December Data is preliminary and may possibly change.



## **High-Level Waste (HLW) Facility**

**D-00A-20, Complete Construction of Structural Steel to 14' in HLW Facility, Due:**  
12/31/2010, Status: Complete

**D-00A-21, Complete Construction of Structural Steel to 37' in HLW Facility, Due:**  
12/31/2012, Status: On Schedule

**D-00A-02, HLW Facility Construction Substantially Complete, Due:** 12/31/2016, Status:  
On Schedule

**D-00A-03, Start HLW Facility Cold Commissioning, Due:** 6/30/2018, Status: On Schedule

**D-00A-04, HLW Facility Hot Commissioning Complete, Due:** 12/31/2019, Status: On  
Schedule

The HLW Facility will receive the separated high-level waste from the Pretreatment (PT) facility. The concentrate is blended with glass formers and converted into molten glass in one of the two HLW melters and then poured into cylindrical stainless steel canisters. After cooling, the canisters are sealed and decontaminated prior to shipment to interim storage. The HLW Facility is 52% complete overall, with engineering design 86% complete, procurement 62% complete, and construction 33% complete.

In December 2010, the facility percent complete values for Design/Engineering and Construction decreased. This decrease in values was tied to the incorporation of the remaining External Flowsheet Review Team (EFRT) Issues. This resulted in an increase in the facility engineering and construction budgets, which has correspondingly reduced the to-date percent complete values.

### **Significant Past Accomplishments:**

Progress on the build-out of the Filter Cave is continuing as planned. The 60-inch diameter C5V supply header was installed along the west wall in late January. This is the first major component to be installed in the Filter Cave and signals the start of the transition from the procurement phase to the commodity installation phase. The second similar header (for collecting the downstream exhaust of the C5V HEPA filters) will be installed in early February. After these two major components are aligned and welded into their final positions, the installation of duct, pipe, steel, and components throughout the Filter Cave will begin. Seismic qualification testing of the HEPA filter seals will be performed in February and witnessed by Contractor and DOE-WTP staff.

**Significant Planned Actions in the Next Six Months:**

- Complete Civil, Structural, and Architectural Title II Design Contract Milestone
- Receive Initial Delivery of C5V HEPA Filter Housings
- Receive Canister Decontamination Vessels and Canister Rinse Vessel
- Set Shielded Personnel Access Door RWH-DOOR-20 in the Waste Drum Swabbing and Monitoring Area
- Complete Fabrication of C5V Dampers
- Commence Siding and Roofing of Annex

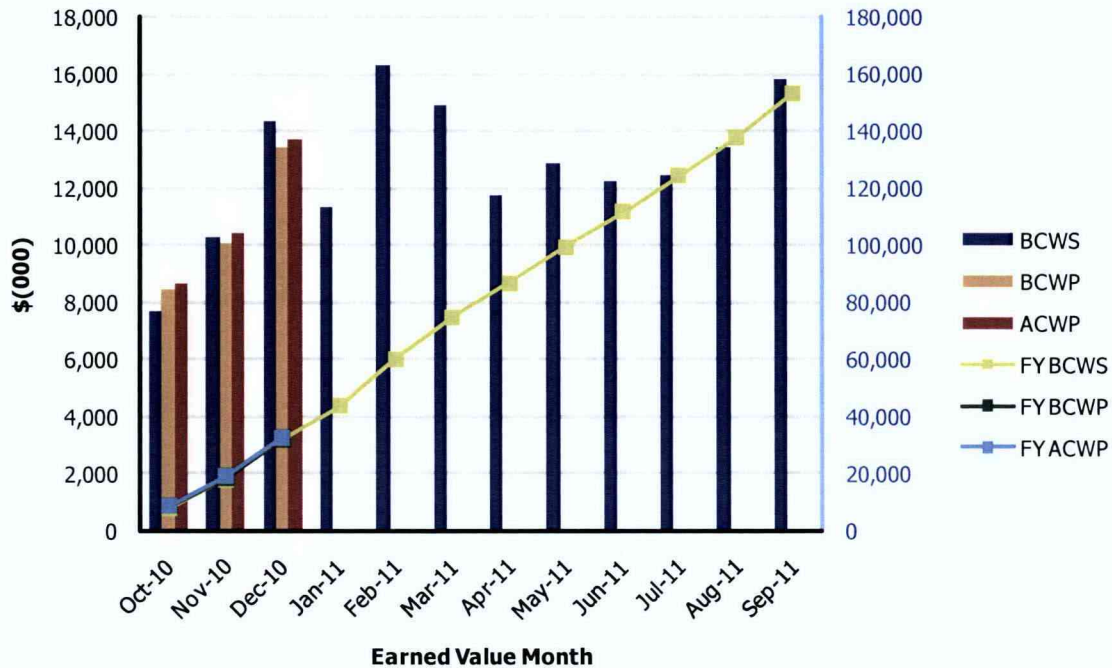
**Issues:**

Delays in deliveries from the commodity vendors have resulted in increased coordination efforts, schedule re-sequencing and order prioritizations in order to avoid impacting Construction. The Contractor is working to identify process improvements and enhance the interfacing in order to reduce potential future schedule delays.

The fabrication and delivery of HLW vessels is also being monitored closely. Vessel status and progress is reported weekly to ensure completion and delivery prior to the scheduled installation dates.

**River Protection**  
**01-D-16D - High-Level Waste Facility**

Facility Specific (unallocated) Monthly and Fiscal-Year-to-Date (FY-TD) EVMS Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	\$7,653	\$8,413	\$8,615	1.10	0.98	\$7,653	\$8,413	\$8,615	1.10	0.98
Nov 2010	\$10,239	\$10,032	\$10,434	0.98	0.96	\$17,892	\$18,445	\$19,049	1.03	0.97
Dec 2010	\$14,364	\$13,384	\$13,697	0.93	0.98	\$32,256	\$31,829	\$32,746	0.99	0.97
Jan 2011	\$11,294					\$43,550				
Feb 2011	\$16,291					\$59,841				
Mar 2011	\$14,924					\$74,765				
Apr 2011	\$11,756					\$86,521				
May 2011	\$12,848					\$99,369				
Jun 2011	\$12,220					\$111,589				
Jul 2011	\$12,471					\$124,059				
Aug 2011	\$13,392					\$137,451				
Sep 2011	\$15,817					\$153,268				
PTD	\$726,676	\$731,053	\$721,872	1.01	1.01					

Note: December Data is preliminary and may possibly change.



## Low-Activity Waste (LAW) Facility

**D-00A-07, LAW Facility Construction Substantially Complete**, Due: 12/31/2014, Status: On Schedule

**D-00A-08, Start LAW Facility Cold Commissioning**, Due: 12/31/2018, Status: On Schedule

**D-00A-09, LAW Facility Hot Commissioning Complete**, Due: 12/31/2019, Status: On Schedule

### Significant Past Accomplishments:

The LAW Facility will vitrify low-activity waste from the PT Facility. Waste will be mixed with glass formers, vitrified into glass at an average daily rate of 30 metric tons, and placed in stainless-steel canisters that will be disposed on site in the Integrated Disposal Facility. Overall facility percent complete is 64%, engineering is 90%, procurement is 80%, and construction is 64%.

In December 2010, the facility percent complete values for Design/Engineering and Construction decreased. This decrease in values was tied to the incorporation of the remaining External Flowsheet Review Team (EFRT) Issues. This resulted in an increase in the facility engineering and construction budgets, which has correspondingly reduced the to-date percent complete values.

- Engineering

BNI Engineering issued piping and instrumentation diagrams (P&IDs) for the LAW chilled water (CHW) system, and a committed calculation, *LAW HVAC C2 Equipment Sizing Calculation*. Controls and instrumentation (C&I) data sheets were issued for LAW radiological monitoring instruments, safety process gauges, important-to-safety (ITS) pressure transmitters, and ITS solenoid valves. Engineering also issued control logic diagrams for the LAW C2V and C5V ventilation systems, steam condensate water (SCW) system, high-pressure steam (HPS) system, low-pressure steam (LPS) system, and the plant cooling water (PCW) system, all to support control software development. Controls and instrumentation (C&I) software was developed for the LAW C2V and C5V ventilation systems, the plant cooling water (PCW) system, and the high-pressure steam (HPS) system.

- Procurement

Procurement activities for the LAW facility included the issuance of material requisitions for the cooling jackets for the LAW melter feed process (LFP) system vessels, pressure relief valves, and instrument racks.

- Construction

During January, BNI completed the electrical “authority having jurisdiction” (AHJ) inspection of several doors within the LAW facility, as well as installation of the cooling panels in pour caves 1 and 2, grating in B-cell, and electrical gutter and call buttons at each LAW floor elevation. Construction activities initiated in January included Thermite welding of rails in the south LAW finishing line and installation of two pumps in the primary off-gas process (LOP) system. BNI continued installation the fire alarm system and medium voltage electrical buss ductwork. Other normal activities continued, including installation of piping and hangers, cable tray, conduit and wiring, instrument enclosures, lighting fixtures, partition wall framing and gypsum wallboard, and perimeter sealants.

- Commissioning

Controls and instrumentation (C&I) software was tested for several LAW systems, including the C5V and C2V ventilation, high-pressure steam, and plant cooling water systems. The preparation of a LAW spare parts list, including melter consumables and feed pump components continued.

**Significant Planned Actions in the Next Six Months:**

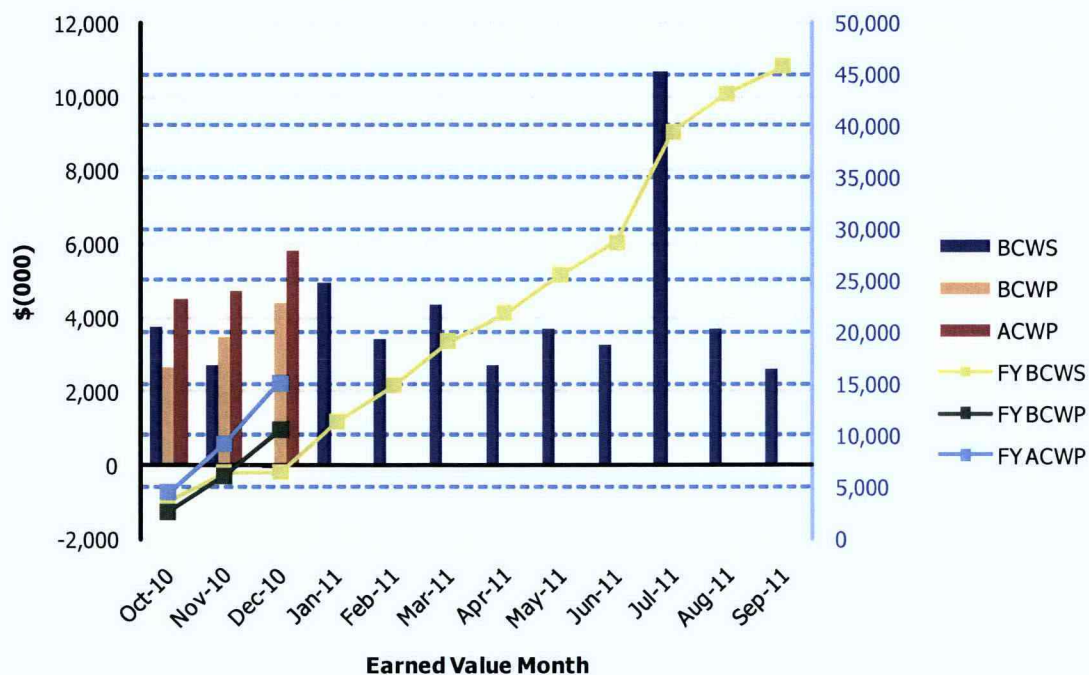
- Complete installation of LAW personnel elevator

**Issues:**

No major issues.

**River Protection**  
**01-D-16A - Low-Activity Waste Facility**

Facility Specific (unallocated) Monthly and Fiscal-Year-to-Date (FY-TD) EVMS Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	\$3,743	\$2,654	\$4,511	0.71	0.59	\$3,743	\$2,654	\$4,511	0.71	0.59
Nov 2010	\$2,732	\$3,462	\$4,752	1.27	0.73	\$6,475	\$6,116	\$9,263	0.94	0.66
Dec 2010	(\$84)	\$4,424	\$5,823	-52.67	0.76	\$6,391	\$10,540	\$15,086	1.65	0.70
Jan 2011	\$4,947					\$11,338				
Feb 2011	\$3,440					\$14,778				
Mar 2011	\$4,325					\$19,104				
Apr 2011	\$2,725					\$21,828				
May 2011	\$3,698					\$25,526				
Jun 2011	\$3,260					\$28,786				
Jul 2011	\$10,689					\$39,475				
Aug 2011	\$3,690					\$43,165				
Sep 2011	\$2,610					\$45,774				
PTD	\$594,861	\$591,479	\$638,183	0.99	0.93					

Note: December Data is preliminary and may possibly change.



## **Analytical Laboratory**

**D-00A-05, LAB Construction Substantially Complete, Due: 12/31/2012, Status: On Schedule**

### **Significant Past Accomplishments:**

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. Overall facility complete for LAB is 45%, engineering is 81%, procurement is 73%, and construction is 69%.

In December 2010, the facility percent complete values for Design/Engineering and Construction decreased. This decrease in values was tied to the incorporation of the remaining External Flowsheet Review Team (EFRT) Issues. This resulted in an increase in the facility engineering and construction budgets, which has correspondingly reduced the to-date percent complete values.

- **Engineering**

In January, BNI engineering issued control logic diagrams for the stack discharge monitoring (SDJ) system to support software development. A controls and instrumentation (C&I) data sheet was issued for "Q" boundary foundation fieldbus pressure transmitters. In addition, controls and instrumentation (C&I) software was developed for the stack discharge monitoring (SDJ) and C2V ventilation systems.

- **Procurement**

A material requisition was issued for the purchase of instrument racks.

- **Construction**

In January, BNI continued installation of the piping in the C2 and C3 drainage pits, electrical raceway and conduit, as well as piping and hangers for the LAB high pressure steam, low pressure steam, and steam condensate systems.

- **Commissioning**

Controls and instrumentation (C&I) software testing was performed for the LAB C2V ventilation, stack discharge monitoring (SDJ), low voltage electrical (LVE), medium voltage electrical (MVE), and uninterruptible power electrical (UVE) systems.

### **Significant Planned Actions in the Next Six Months:**

- Install LAB waste drum bogie shield door
- Complete LAB C5 ventilation filter room ceiling design

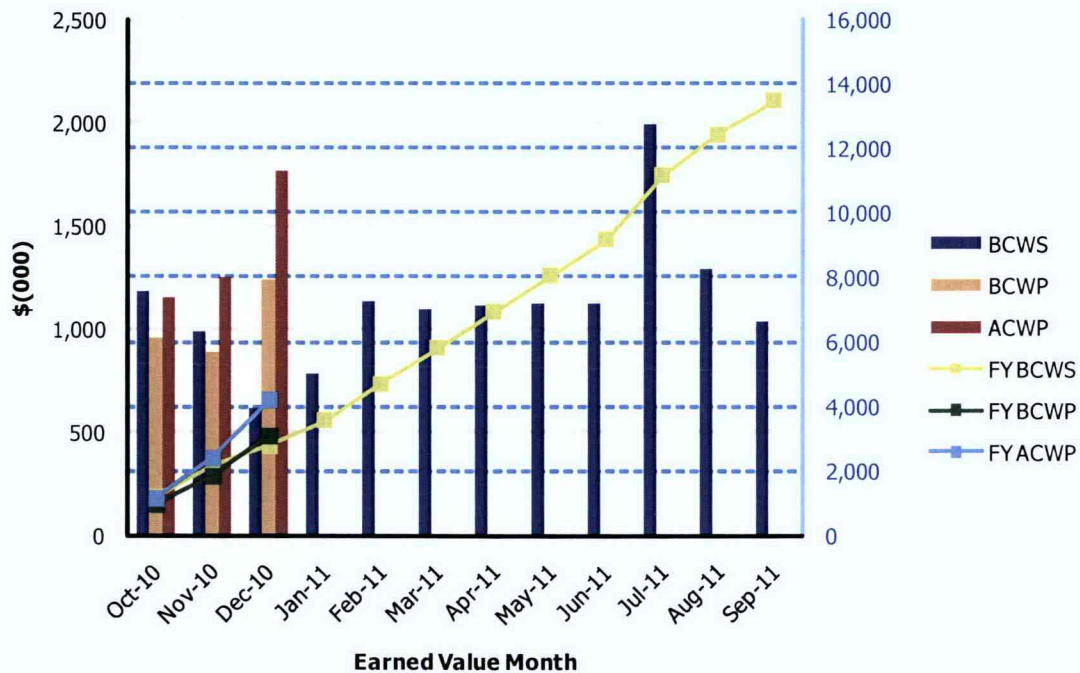
### **Issues:**

No major issues.



**River Protection**  
**01-D-16B - Analytical Laboratory**

Facility Specific (unallocated) Monthly and Fiscal-Year-to-Date (FY-TD) EVMS Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	\$1,180	\$954	\$1,152	0.81	0.83	\$1,180	\$954	\$1,152	0.81	0.83
Nov 2010	\$984	\$893	\$1,245	0.91	0.72	\$2,164	\$1,847	\$2,397	0.85	0.77
Dec 2010	\$621	\$1,236	\$1,768	1.99	0.70	\$2,785	\$3,083	\$4,165	1.11	0.74
Jan 2011	\$783					\$3,568				
Feb 2011	\$1,137					\$4,706				
Mar 2011	\$1,096					\$5,802				
Apr 2011	\$1,116					\$6,918				
May 2011	\$1,128					\$8,046				
Jun 2011	\$1,125					\$9,170				
Jul 2011	\$1,986					\$11,156				
Aug 2011	\$1,289					\$12,445				
Sep 2011	\$1,038					\$13,482				
PTD	\$155,999	\$155,470	\$168,843	1.00	0.92					

Note: December Data is preliminary and may possibly change.

## **Balance of Facilities (BOF)**

**D-00A-12, Steam Plant Construction Complete, Due: 12/31/2012, Status: On Schedule**

### **Significant Past Accomplishments:**

BOF provides services and utilities to support operation of the main production facilities – PT, HLW, LAW, and LAB. Overall facility percent complete for BOF is 46%, engineering is 85%, procurement is 44%, and construction is 60%.

In December 2010, the facility percent complete values for Design/Engineering and Construction decreased. This decrease in values was tied to the incorporation of the remaining External Flowsheet Review Team (EFRT) Issues. This resulted in an increase in the facility engineering and construction budgets, which has correspondingly reduced the to-date percent complete values.

- **Engineering**

BNI Engineering issued a system description for the glass former reagent (GFR) system, a control logic diagram for the uninterruptible power electrical (UPE) system, and several controls and instrumentation (C&I) data sheets for pressure/differential pressure/temperature transmitters.

- **Procurement**

The major focus has been on procurement of the Emergency Diesel Generators (EDGs). A new price quote from the vendor is expected in February. The CO<sub>2</sub> vessel delivery is now expected in February due to weather associated delays. Material requisitions were issued to purchase safety pressure relief valves and instrument racks.

- **Construction**

BNI construction completed the installation of BOF chilled water system booster pumps in support of the LAW facility. Multiple construction activities continued at the chiller compressor plant (CCP), the glass former storage facility (GFSF), and the water treatment facility. The fire alarm detection system installation continued at the T-52 Warehouse.

- **Commissioning**

Work continued on the development of a decontamination guide.

### **Significant Planned Actions in the Next Six Months:**

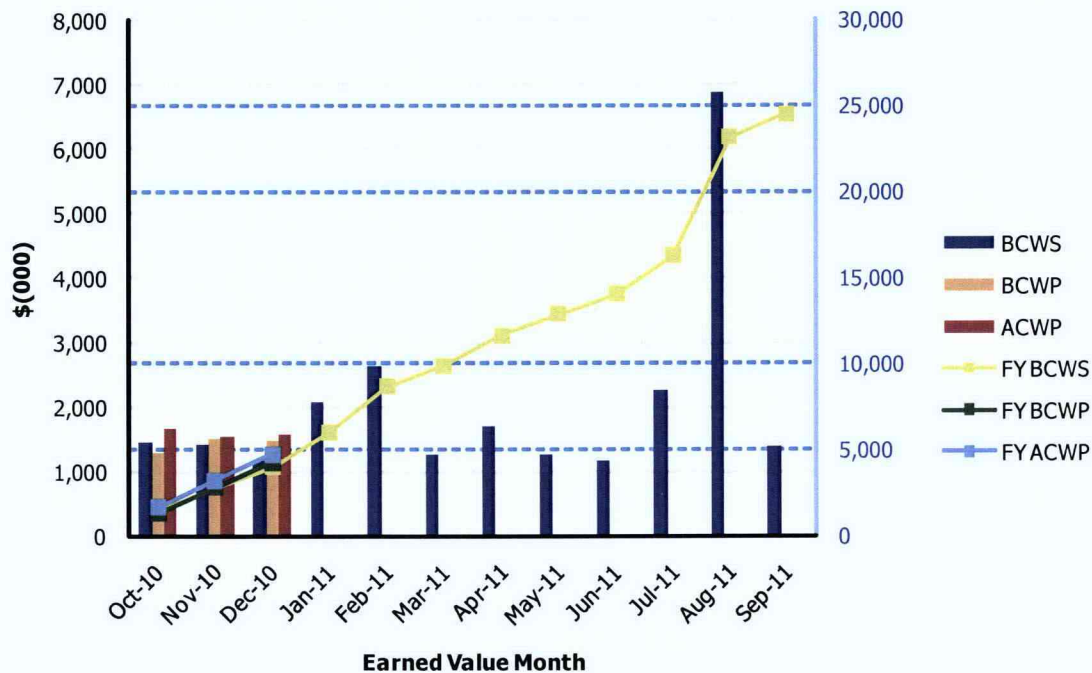
- Award EDG procurement
- Complete concrete placements for BOF Ammonia Facility
- Receive BOF ammonia vaporizer skid
- Complete water treatment facility

### **Issues:**

No major issues.

**River Protection**  
**01-D-16C - Balance of Facilities**

Facility Specific (unallocated) Monthly and Fiscal-Year-to-Date (FY-TD) EVMS Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2010	\$1,428	\$1,272	\$1,660	0.89	0.77	\$1,428	\$1,272	\$1,660	0.89	0.77
Nov 2010	\$1,398	\$1,520	\$1,539	1.09	0.99	\$2,826	\$2,792	\$3,199	0.99	0.87
Dec 2010	\$1,150	\$1,475	\$1,558	1.28	0.95	\$3,976	\$4,267	\$4,757	1.07	0.90
Jan 2011	\$2,058					\$6,034				
Feb 2011	\$2,634					\$8,668				
Mar 2011	\$1,243					\$9,911				
Apr 2011	\$1,698					\$11,610				
May 2011	\$1,264					\$12,874				
Jun 2011	\$1,168					\$14,042				
Jul 2011	\$2,239					\$16,281				
Aug 2011	\$6,854					\$23,135				
Sep 2011	\$1,384					\$24,518				
PTD	\$239,169	\$238,633	\$236,671	1.00	1.01					

Note: December Data is preliminary and may possibly change.



### Waste Treatment Plant Project - Percent Complete Status

Through December 2010

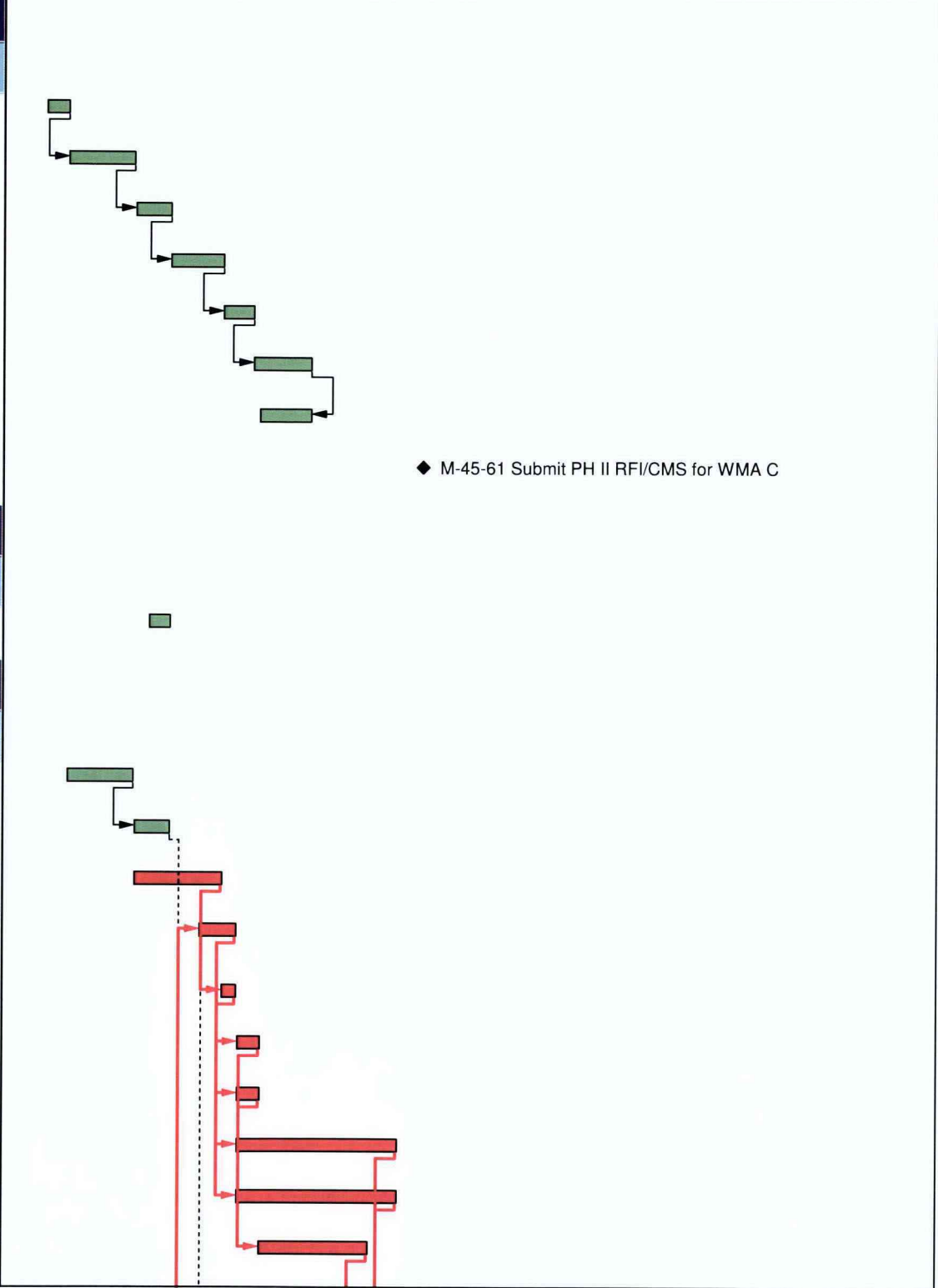
(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars		
	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
Facilities												
Low-Activity Waste	924.8	591.5	64%	219.4	197.3	90%	233.3	187.5	80%	315.8	200.7	64%
Analytical Lab	343.2	155.5	45%	51.5	41.5	81%	56.9	41.3	73%	88.7	61.4	69%
Balance of Facilities	523.6	238.6	46%	69.4	58.7	85%	83.9	37.1	44%	226.6	134.8	60%
High-Level Waste	1,417.5	731.1	52%	328.1	283.1	86%	440.1	273.7	62%	523.4	170.2	33%
Pretreatment	2,446.7	1,106.3	47%	653.9	510.0	78%	708.0	297.2	42%	893.3	293.9	33%
Shared Services	4,768.9	3,089.9	65%	1,081.0	855.7	79%	470.2	330.7	70%	1,405.7	977.8	70%
Total WTP w/o UB	10,424.7	5,912.8	57%	2,403.3	1,946.3	81%	1,992.4	1,167.5	59%	3,453.5	1,838.7	53%
Undistributed Budget	65.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total WTP	10,490.4	5,912.8	56%	2,403.3	1,946.3	81%	1,992.4	1,167.5	59%	3,453.5	1,838.7	53%

Source: WTP Contract Performance Report

Note: In December 2010, the facility percent complete values for Design/Engineering and Construction decreased. This decrease in values was tied to the incorporation of the remaining External Flowsheet Review Team (EFRT) issues. This resulted in an increase in the facility engineering and construction budgets, which has correspondingly reduced the to-date percent complete values.



Line Number	Activity ID	Activity Name	Forecast Start	Forecast Finish	Predecessors	Successors	Y2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
							F	F	F	F	F	F	F	F	F	F	F
5.02.01.04.01 Vadose Zone Mgmt & Regulatory Docs			01-Oct-10	31-Dec-14													
5.02.01.04.01.02 Regulatory Document Support and Devl			01-Oct-10	31-Dec-14													
1	HCA-REG136	Plan CMS Review Support (FY11)	01-Oct-10*	30-Dec-10		HCA-REG135											
2	HCA-REG135	Perform CMS Field Demonstration Work	03-Jan-11	30-Sep-11	HCA-REG136	HCA-REG202											
3	HCA-REG202	Document WMA C CMS Field Work Demonstration Results	03-Oct-11	29-Feb-12	HCA-REG135	HCA-REG204											
4	HCA-REG204	Draft WMA C CMS Document	01-Mar-12	28-Sep-12	HCA-REG202	HCA-REG206											
5	HCA-REG206	Review/Revise Draft WMA C CMS	01-Oct-12	31-Jan-13	HCA-REG204	HCA-REG208											
6	HCA-REG208	Finalize WMA C CMS	01-Feb-13	30-Sep-13	HCA-REG206	HCA-REG212, PBI-2.1.10											
7	HCA-REG212	Develop Outline, Corrective Measures Implementation Plan	01-Mar-13	30-Sep-13	HCA-REG208												
8	M-45-61	M-45-61 Submit PH II RFI/CMS for WMA C		31-Dec-14*	PBI-2.1.10												
5.02.04.02.02 NEPA/SEPA Documents			01-Dec-11	28-Feb-12													
5.02.04.02.02.03 NEPA/SEPA Checklist			01-Dec-11	28-Feb-12													
9	HJA-202248	Prepare NEPA/SEPA Checklist for Tier 1 Closure Plan	01-Dec-11*	28-Feb-12													
5.02.04.02.03 Closure Plan Updates			01-Oct-10	29-Jun-15													
5.02.04.02.03.02 DOE 435.1 Closure Plan			03-Jan-11	31-Dec-14													
10	HJA-RD0100	Draft DOE 435.1 Tier 1 Closure Plan, WMA C FY11	03-Jan-11*	30-Sep-11		HJA-RD0101											
11	HJA-RD0101	Draft DOE 435.1 Tier 1 Closure Plan, WMA C FY12	03-Oct-11	28-Feb-12	HJA-RD0100	HJA-RD0104											
12	HJA-RD0108	Draft WIR Basis Document FY12	03-Oct-11*	28-Sep-12		HJA-RD0110											
13	HJA-RD0104	Revise and Issue Plan - Tier 1 (Tier 1 Closure Plan, WIR, PA and Composite Analysis)(*2)	02-Jul-12	30-Nov-12	HJA-RD0101, HJA-RD0031	HJA-RD0105, PBI-2.2.12, PBI-2.2.11, HJA-RD0134, HJA-RD0144											
14	HJA-RD0110	Revise and Issue WIR Basis Document	01-Oct-12	30-Nov-12	HJA-RD0108, HJA-RD0021	HJA-RD0114, PBI-2.2.10, HJA-RD0134, HJA-RD0144											
15	HJA-RD0134	DOE Headquarter Review - Tier 1 Package(*1)	03-Dec-12	04-Mar-13	HJA-RD0104, HJA-RD0110	HJA-RD0174											
16	HJA-RD0144	DOE Headquarter LFRG Review - Tier 1 Package(*1)	03-Dec-12	04-Mar-13	HJA-RD0104, HJA-RD0110	HJA-RD0174											
17	HJA-RD0114	WRPS Support Review of Documents supporting WIR Determination by DOE	03-Dec-12	26-Sep-14	HJA-RD0110	HJC-RD0116											
18	HJA-RD0105	WRPS Support DOE Review of 435.1 Tier 1 Closure Plan	03-Dec-12	26-Sep-14	HJA-RD0104	HJC-RD0116											
19	HJA-RD0174	NRC Review - Tier 1 Package	05-Mar-13	28-May-14	HJA-RD0134, HJA-RD0144	HJA-RD0184											



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WRPS, River Protection Project



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							F	F	F	F	F	F	F	F	F	F	F	F	F
	20	HJA-RD0184	DOE HQ Review/Approval - Tier 1 Package (Includes Waste Determination & Performance Assessment Package)	29-May-14	26-Sep-14	HJA-RD0174	HJC-RD1126												
	21	HJC-RD1126	DOE HQ Approval Tier 1		26-Sep-14	HJA-RD0184	HJC-RD1146												
	22	HJC-RD0116	WIR Determination Approval		26-Sep-14	HJA-RD0114, HJA-RD0105	HJC-RD1146												
	23	HJA-RD0118	Draft DOE 435.1 Tier 2 Closure Plan, WMA C, Initial Tanks	01-Jul-13*	28-Feb-14		HJA-RD0120, HJA-RD0124												
	24	HJA-RD0120	Review and Issue DOE 435.1 Tier 2 Closure Plan, WMA C, Initial Tanks	03-Mar-14	30-Jun-14	HJA-RD0118	HJC-RD1146												
	25	HJA-RD0124	WRPS Support Review of Plan by DOE - Initial Tanks	03-Mar-14	30-Jun-14	HJA-RD0118													
	26	HJC-RD1146	DOE Field Office Approval of Tier II Plans - Initial Tanks		26-Sep-14	HJA-RD0120, HJC-RD0116, HJC-RD1126	HKA-FD2164												
	27	HJA-RD1128	Draft DOE435.1 Tier 2 Closure Plan, WMA C, Remaining Tanks (C-101, C-102, & C-105)(*3)	03-Mar-14*	22-Oct-14		HJA-RD1130, HJA-RD1134												
	28	HJA-RD1130	Review and Issue DOE435.1 Tier 2 Closure Plan, WMA C, Remaining Tanks	23-Oct-14	26-Nov-14	HJA-RD1128													
	29	HJA-RD1134	Support Review of Plan by DOE - Remaining Tanks	23-Oct-14	26-Nov-14	HJA-RD1128	HJC-RD1136												
	30	HJC-RD1136	DOE Field Office Approval of Tier II Plans - Remaining Tanks		31-Dec-14*	HJA-RD1134													
5.02.04.02.03.03 TPA/RCRA Closure Plans			01-Oct-10	29-Jun-15															
	31	HJA-RD014801	Framework Closure - Tier 1 Draft Plan	01-Oct-10*	30-Dec-10		HJA-RD0150												
	32	HJA-RD0150	Framework Closure -Tier 1 Finalize,Revise and Issue Plan	03-Jan-11	30-Sep-11	HJA-RD014801	HJA-RD0154, PBI-2.2.13												
	33	HJA-RD0154	Tier 1 Support Ecology Reviw - DOE Response/Issue Resolution(FY12)	03-Oct-11	28-Sep-12	HJA-RD0150	HJA-RD0155												
	34	HJA-RD0155	Tier 1 Support Ecology Reviw - DOE Response/Issue Resolution(FY13)	01-Oct-12	31-May-13	HJA-RD0154	HJC-RD0160												
	35	HJC-RD0160	Tier 1 Ecology Permit/Approval		03-Jun-13	HJA-RD0155	HKA-FD2164												
	36	HJA-RD0162	Draft TPA Tier 2 Closure Plan, WMA C (FY11)	01-Apr-11*	30-Sep-11		HJA-RD0163												
	37	HJA-RD0163	Draft TPA Tier 2 Closure Plan, WMA C (FY12)	03-Oct-11	31-Jan-12	HJA-RD0162	HJA-RD0164												
	38	HJA-RD0164	Finalize, Review and Issue TPA Tier 2 Closure Plan, WMA C	01-Feb-12	31-Aug-12	HJA-RD0163	HJA-RD0168, PBI-2.2.14												
	39	HJA-RD0168	TPA Tier 2 Support Ecology Reviw and DOE Response and Issue Resolution	04-Sep-12	03-Sep-13	HJA-RD0164	HJC-RD0174												
	40	HJC-RD0174	TPA Tier 2 Closure Plan Ecology Permit/Approval		03-Sep-13	HJA-RD0168	HHC-244GRZ, HHC-CC001G, HHC-CC002G, HHC-CC003G, HHC-CC004G, HHC-CC005G, HHC-CC006G, HHC-CC007G, HHC-CC008G, HHC-CC009G, HHC-CC010G, HHC-CC011G, HHC-CC012G, HHC-CC013G, HHC-CC014G, HHC-CC015G, HHC-CC016G, HHC-CC017G, HHC-CC018G, HHC-CC019G, HHC-CC020G, HHC-CC021G, HHC-CC022G, HHC-CC023G, HHC-CC024G, HHC-CC025G, HHC-CC026G, HHC-CC027G, HHC-CC028G, HHC-CC029G, HHC-CC030G, HHC-CC031G, HHC-CC032G, HHC-CC033G, HHC-CC034G, HHC-CC035G, HHC-CC036G, HHC-CC037G, HHC-CC038G, HHC-CC039G, HHC-CC040G, HHC-CC041G, HHC-CC042G, HHC-CC043G, HHC-CC044G, HHC-CC045G, HHC-CC046G, HHC-CC047G, HHC-CC048G, HHC-CC049G, HHC-CC050G, HHC-CC051G, HHC-CC052G, HHC-CC053G, HHC-CC054G, HHC-CC055G, HHC-CC056G, HHC-CC057G, HHC-CC058G, HHC-CC059G, HHC-CC060G, HHC-CC061G, HHC-CC062G, HHC-CC063G, HHC-CC064G, HHC-CC065G, HHC-CC066G, HHC-CC067G, HHC-CC068G, HHC-CC069G, HHC-CC070G, HHC-CC071G, HHC-CC072G, HHC-CC073G, HHC-CC074G, HHC-CC075G, HHC-CC076G, HHC-CC077G, HHC-CC078G, HHC-CC079G, HHC-CC080G, HHC-CC081G, HHC-CC082G, HHC-CC083G, HHC-CC084G, HHC-CC085G, HHC-CC086G, HHC-CC087G, HHC-CC088G, HHC-CC089G, HHC-CC090G, HHC-CC091G, HHC-CC092G, HHC-CC093G, HHC-CC094G, HHC-CC095G, HHC-CC096G, HHC-CC097G, HHC-CC098G, HHC-CC099G, HHC-CC100G												
	41	HJA-RD0176	Draft Updated TPA Tier 2 Closure Plan, WMA C	23-Aug-13*	21-Apr-14		HJA-RD0178												
	42	HJA-RD0178	Finalize, Review, and Issue Updated TPA Tier 2 Closure Plan, WMA C	22-Apr-14	22-Aug-14	HJA-RD0176	HJA-RD0182												
	43	HJA-RD0182	TPA Tier 2 Closure Plan Support Ecology Reviw and DOE Response and Issue Resolution	25-Aug-14	29-Jun-15	HJA-RD0178	HJC-RD0185												

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							F	F	F	F	F	F	F	F	F	F	F
44	HJC-RD0185	TPA Tier 2 Closure PlanEcology Permit/Approval		29-Jun-15	HJA-RD0182												TPA Tier 2 Closure PlanEcology Permit/Approval
5.02.04.02.05 Tank Farms Risk Assessments			01-Oct-10	29-Sep-17													
5.02.04.02.05.01 Risk Assessments for Tank Farms			01-Oct-10	29-Sep-17													
45	HJA-RD0017	WMA C HH&E Modeling - Pre Model Runs	01-Oct-10*	30-Sep-11		PBI-2.2.8.5, HJA-RD0053											
46	HJA-RD0023	WMA C HH&E Documentation - Draft Assessment Documents	01-Oct-10*	30-Sep-11		HJA-RD0053											
47	HJA-RD0053	WMA C HH&E Documentation - Model Prep & Initial Runs (FY12)	03-Oct-11	31-Jan-12	HJA-RD0017, HJA-RD0023	HJA-RD0019, HJA-RD0021											
48	HJA-RD0019	WMA C HH&E Modeling - Review/Update Model	01-Feb-12	29-Feb-12	HJA-RD0053	HJA-RD0021, PBI-2.2.9											
49	HJA-RD0021	WMA C HH&E Modeling - Final Model Runs	01-Mar-12	28-Jun-12	HJA-RD0019, HJA-RD0053	HJA-RD0025, HJA-RD0033, HJA-RD0110											
50	HJA-RD0031	Finalize HH&E Documentation and Provide PA Documentation FY11	01-Jun-12*	29-Jun-12		HJA-RD0039, HJA-RD0027, HJA-RD0104											
51	HJA-RD0025	WMA C HH&E Documentation - Update to Include Final Model Runs	29-Jun-12	31-Aug-12	HJA-RD0021												
52	HJA-RD0033	Support Regulatory Review of WMA C HH&E Assessment	29-Jun-12	31-Aug-12	HJA-RD0021												
53	HJA-RD0027	WMA C HH&E Documentation - DOE Reveiw of Document	02-Jul-12	31-Jul-12	HJA-RD0031	HJA-RD0029											
54	HJA-RD0039	Finalize HH&E Documentation and Provide PA Documentation FY12	02-Jul-12	31-Aug-12	HJA-RD0031												
55	HJA-RD0029	WMA C HH&E Documenation - Finalize Assessment Documents	01-Aug-12	31-Aug-12	HJA-RD0027												
56	HJA-RD0035	Review New Data and Compare to WMA C Assessment Assumptions	01-Feb-13*	30-Aug-13		HJA-RD0038, HJA-RD0041											
57	HJA-RD0038	Update and Issue WMAC C HH&E Assessment With New Data	03-Sep-13	29-Oct-13	HJA-RD0035	HJA-RD0040											
58	HJA-RD0040	Issue Revised WMA C HH&E Assessment (Soil Data Complete)	30-Oct-13	02-Dec-13	HJA-RD0038												
59	HJA-RD0041	Update WMA C HH&E Assessment with New Data (FY15)	01-Oct-14*	30-Sep-15	HJA-RD0035	HJA-RD0043											
60	HJA-RD0043	Update WMA C HH&E Assessment with New Data (FY16)	01-Oct-15	30-Sep-16	HJA-RD0041	HJA-RD0045											
61	HJA-RD0045	Update WMA C HH&E Assessment with New Data (FY17)	03-Oct-16	29-Sep-17	HJA-RD0043												
5.02.05.06.01 C-101 Interim Closure			23-Sep-15	23-Sep-15													
5.02.05.06.01.01 C-101 Tier 3 Closure Plan/Permit Modification			23-Sep-15	23-Sep-15													
62	HHC-CC001G	C-101 Tier 3 Ecology Permit(*4)		23-Sep-15*	HJC-RD0174												C-101 Tier 3 Ecology Permit(*4)
5.02.05.06.02 C-102 Interim Closure			23-Sep-15	23-Sep-15													
5.02.05.06.02.01 C-102 Tier 3 Closure Plan/Permit Modification			23-Sep-15	23-Sep-15													

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							F	F	F	F	F	F	F	F	F	F	F
63	HHC-CC002G	C-102 Tier 3 Ecology Permit		23-Sep-15*	HJC-RD0174												
5.02.05.06.03 C-103 Interim Closure			04-Jun-14	04-Jun-14													
5.02.05.06.03.01 C-103 Tier 3 Closure Plan/Permit Modification			04-Jun-14	04-Jun-14													
64	HHC-CC003G	C-103 Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												
5.02.05.06.04 C-104 Interim Closure			04-Jun-14	04-Jun-14													
5.02.05.06.04.01 C-104 Tier 3 Closure Plan/Permit Modification			04-Jun-14	04-Jun-14													
65	HHC-CC004G	C-104 Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												
5.02.05.06.05 C-105 Interim Closure			23-Sep-15	23-Sep-15													
5.02.05.06.05.01 C-105 Tier 3 Closure Plan/Permit Modification			23-Sep-15	23-Sep-15													
66	HHC-CC005G	C-105 Tier 3 Ecology Permit		23-Sep-15*	HJC-RD0174												
5.02.05.06.06 C-106 Interim Closure			04-Jun-14	04-Jun-14													
5.02.05.06.06.01 C-106 Tier 3 Closure Plan/Permit Modification			04-Jun-14	04-Jun-14													
67	HHC-CC006G	C-106 Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												
5.02.05.06.08 C-108 Interim Closure			04-Jun-14	04-Jun-14													
5.02.05.06.08.01 C-108 Tier 3 Closure Plan/Permit Modification			04-Jun-14	04-Jun-14													
68	HHC-CC008G	C-108 Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												
5.02.05.06.07 C-107 Interim Closure			04-Jun-14	04-Jun-14													
5.02.05.06.07.01 C-107 Tier 3 Closure Plan/Permit Modification			04-Jun-14	04-Jun-14													
69	HHC-CC007G	C-107 Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												
5.02.05.06.10 C-110 Interim Closure			04-Jun-14	04-Jun-14													
5.02.05.06.10.01 C-110 Tier 3 Closure Plan/Permit Modification			04-Jun-14	04-Jun-14													
70	HHC-CC010G	C-110 Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												
5.02.05.06.09 C-109 Interim Closure			04-Jun-14	04-Jun-14													
5.02.05.06.09.01 C-109 Tier 3 Closure Plan/Permit Modification			04-Jun-14	04-Jun-14													
71	HHC-CC009G	C-109 Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												

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							F	F	F	F	F	F	F	F	F	F	F
5.02.05.06.11 C-111 Interim Closure			04-Jun-14	04-Jun-14													
5.02.05.06.11.01 C-111 Tier 3 Closure Plan/Permit Modification			04-Jun-14	04-Jun-14													
72	HHC-CC011G	C-111 Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												
5.02.05.06.12 C-112 Interim Closure			04-Jun-14	04-Jun-14													
5.02.05.06.12.01 C-112 Tier 3 Closure Plan/Permit Modification			04-Jun-14	04-Jun-14													
73	HHC-CC012G	C-112 Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												
5.02.05.06.13 C-201-204 Interim Closure			04-Jun-14	04-Jun-14													
5.02.05.06.13.01 C-201-204 Tier 3 Closure Plan/Permit Modif			04-Jun-14	04-Jun-14													
74	HHC-CC020G	C-201-204 Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												
5.02.05.06.17 241-C301 Catch Tank Retrieval/Closure			04-Jun-14	04-Jun-14													
5.02.05.06.17.10 241-C301 CT Tier 3 Closure Plan/Permit Modif			04-Jun-14	04-Jun-14													
75	HHC-CT301Z	241-C-301 Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												
5.02.05.06.18 244-CR Vault Retrieval/Closure			04-Jun-14	04-Jun-14													
5.02.05.06.18.10 244-CR Tier 3 ClosurePlan/Permit Modification			04-Jun-14	04-Jun-14													
76	HHC-244CRZ	244-CR Vault Tier 3 Ecology Permit		04-Jun-14*	HJC-RD0174												
5.02.05.06.14 C-Farm Closure Management			01-Dec-10	30-Sep-11													
5.02.05.06.14.06 WMA C Closure Conceptual Design			01-Dec-10	30-Sep-11													
77	HHA-CD000A	WMA C Conceptual Design FY11	01-Dec-10*	30-Sep-11													
5.02.05.06.15 Closure Demonstration			01-Oct-10	26-Sep-19													
5.02.05.06.15.01 C-200 Closure Demo Project Management			31-Jan-11	31-Jan-11													
78	M-45-80	M-45-80, Complete C-200 Closure Demonstration Plan Items		31-Jan-11*	C-45-80												
79	C-45-80	Complete C-200 Closure Demonstration Plan Items		31-Jan-11*		M-45-80											
5.02.05.06.15.07 Provide Pipeline Feasibility			01-Oct-10	30-Dec-10													
80	HKA-FD2140	Finalize and Submit Pipeline Feasibility Study	01-Oct-10*	30-Dec-10		PBI-2.2.6, HKA-FD2148											
5.02.05.06.15.08 Final Grout Testing and Readiness Preparation			03-Jan-13	03-Jan-14													

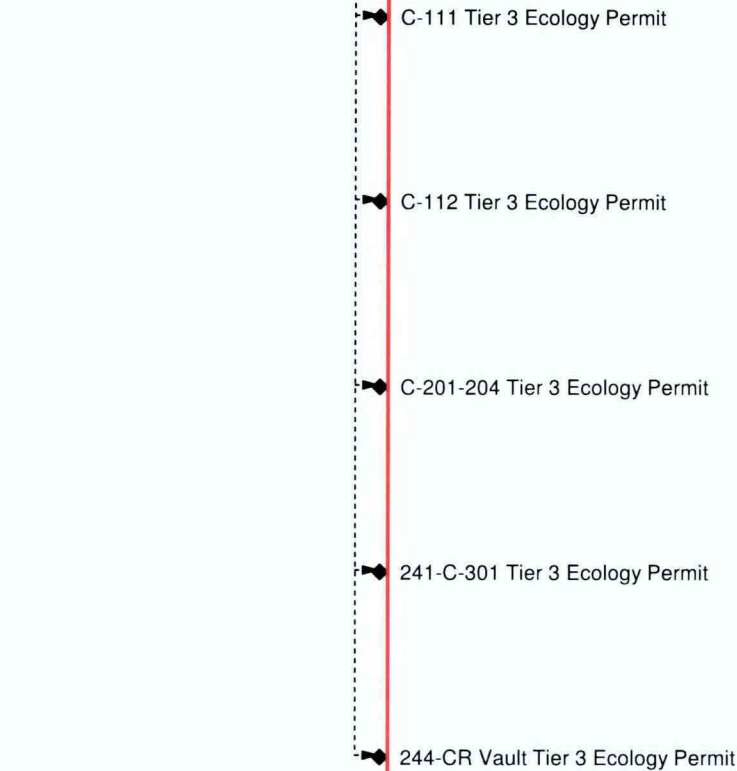
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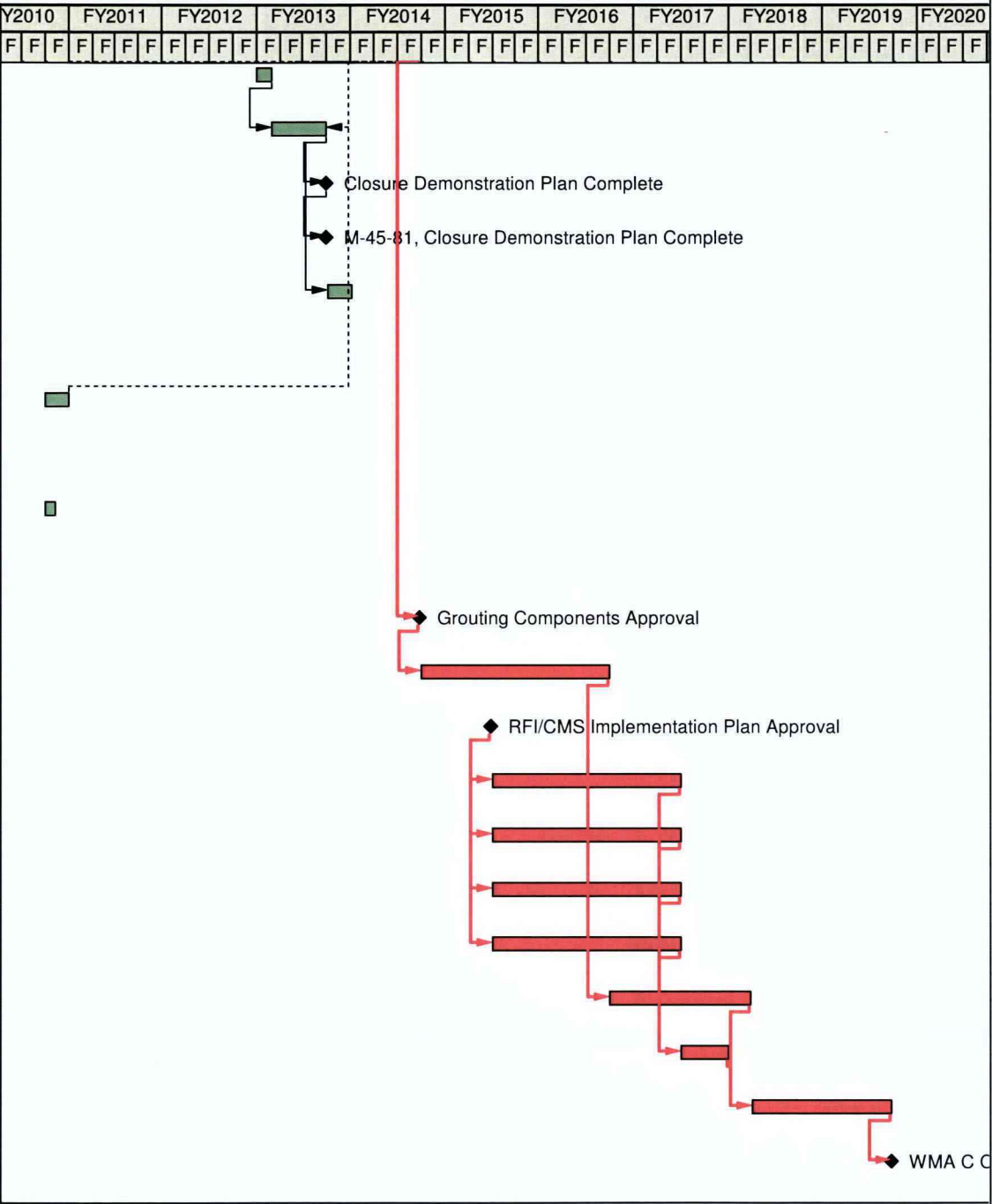
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							F	F	F	F	F	F	F	F	F	F	F
81	HKA-FD2134	Final Grout Testing and Readiness Preperation	03-Jan-13*	01-Mar-13		HKA-FD2148											
82	HKA-FD2148	Conduct Demonstration	04-Mar-13	30-Sep-13	HKA-FD2134, HKA-FD2140, HKA-FD2144	C-45-81, HKA-FD2149											
83	C-45-81	Closure Demonstration Plan Complete		30-Sep-13	HKA-FD2148	M-45-81											
84	M-45-81	M-45-81, Closure Demonstration Plan Complete		30-Sep-13	C-45-81												
85	HKA-FD2149	Demonstration Reporting Prior to Grouting Tanks	01-Oct-13	03-Jan-14	HKA-FD2148												
5.02.05.06.15.09 C-301 Catch Tank Retrieval Evaluation			01-Oct-10	30-Dec-10													
86	HKA-FD2144	Finalize Engineering Evaluation Report and Submit to ORP	01-Oct-10*	30-Dec-10		HKA-FD2148, PBI-2.2.4											
5.02.05.06.15.12 Tank Removal Study			01-Oct-10	12-Nov-10													
87	HKA-FD2154	Finalize Draft Tank Removal Study Report and Submit to TOC - FY11	01-Oct-10*	12-Nov-10		PBI-2.2.3											
5.02.05.06.15.13 WMA C Field Closure Activities			26-Sep-14	26-Sep-19													
88	HKA-FD2164	Grouting Components Approval		26-Sep-14*	HJC-RD1146, HJC-RD0160, HJC-RD0174	HKA-FD2174											
89	HKA-FD2174	Component Grouting	29-Sep-14	29-Sep-16	HKA-FD2164	HKA-FD2184											
90	M-45-62	RFI/CMS Implementation Plan Approval		30-Jun-15*		HKA-FD2214, HKA-FD2224, HKA-FD2234, HKA-FD2204											
91	HKA-FD2204	Soil Corrective Actions per the RFI/CMS Implementation Plan	01-Jul-15	30-Jun-17	M-45-62	HKA-FD2254											
92	HKA-FD2214	Drywell decommissioning	01-Jul-15	30-Jun-17	M-45-62	HKA-FD2254											
93	HKA-FD2224	Surrounding site actions, groundwater well actions	01-Jul-15	30-Jun-17	M-45-62	HKA-FD2254											
94	HKA-FD2234	Ancillary equipment actions (e.g. pipelines)	01-Jul-15	30-Jun-17	M-45-62	HKA-FD2254											
95	HKA-FD2184	Post-grouting D&D actions	30-Sep-16	30-Mar-18	HKA-FD2174	HKA-FD2194											
96	HKA-FD2254	Final Site Prep	03-Jul-17	02-Jan-18	HKA-FD2224, HKA-FD2214, HKA-FD2234, HKA-FD2204	HKA-FD2194											
97	HKA-FD2194	Construct Closure Cap	02-Apr-18	26-Sep-19	HKA-FD2184, HKA-FD2254	M-45-83											
98	M-45-83	WMA C Closure		26-Sep-19*	HKA-FD2194												



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